FACTOR ANALYSIS IN ASSESSING VALIDITY: APPLICATIONS TO THE BEM SEX ROLE INVENTORY

By

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TABLE OF CONTENTS

CHAPTER		PAGE
I	STATEMENT OF THE PROBLEM	1
	Purpose of the Study	2
	Theoretical Rationale	3
	Significance of the Study	6
	Summary	7
II	REVIEW OF THE LITERATURE	9
	Development of the BSRI	9
	Reliability	11
	Methodological Criticisms	12
	Typical vs. Ideal Ratings of Self and Others	15
	Validity and the BSRI	21
	Using Behavioral Measures	21
	Personality Measures	23
	Factor Analyses of the BSRI	26
	Using Self-report Data	26
	Factor Analyses Using Desirability Ratings	34
	Summary	37
III	METHODOLOGY	40
	Design	40
	Subjects	41
	Instrumentation	41
	Data Analysis	42
	Limitations	45
	Summary	46
IV	RESULTS	48
	Results of Male vs. Female Self-report Ratings	49
	Results of Desirability vs. Self-report Ratings	63
	Comparisons of the Female Self-report Samples	76
	Summary	81

V DISCUSSION AND CONCLUSIONS..... 84

Discussion of Male/Female Comparisons..... 84
Discussion of Self-report/Desirability Comparisons..... 88
Implications for BSRI Users..... 90
Implications for Future Validation Studies of the BSRI..... 93
Future Studies of Sex Role Perceptions..... 95
Summary..... 98

APPENDICES

A BEM SEX ROLE INVENTORY DESIRABILITY AND SELF-REPORT INSTRUCTIONS..... 100

Desirability Instructions..... 101
Self-report Instructions..... 103

B INTERITEM CORRELATIONS BASED ON THE STANDARDIZED VARIANCE-COVARIANCE MATRICES..... 105

C PRIMARY FACTOR MATRICES BY GROUP..... 126

BIBLIOGRAPHY..... 145

BIOGRAPHICAL SKETCH..... 150

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APPLICATIONS TO THE BEM SEX ROLE INVENTORY

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The measurement of sex role perceptions plays an important role in evaluations of sex equity in education. The purpose of this study was to assess the factorial invariance of the Bem Sex Role Inventory (BSRI) for two conditions: (1) males and females using a self-report format; (2) females using a self-report format and females rating desirability of the same traits for an American woman. Responses were obtained from 203 females and 221 males for the first phase of this study. For the second phase, responses were collected from 445 females. Subjects were undergraduate students at the University of Florida.

Responses to the 60-item BSRI were factor analyzed for each subgroup. To overcome the problem of metric inherent in factor analyses from separate correlation matrices, each subgroup covariance matrix was standardized using the

CHAPTER I

STATEMENT OF THE PROBLEM

In recent years an emphasis has been placed on providing equal educational opportunities for male and female students. Backed by federal law (P.L. 93-380 among others), efforts have been made to develop programs which overcome real and perceived barriers to personal and vocational development of any student because of gender. While equity has been variously defined, one component has dealt with the affective domain. The assumption has been made that by fostering egalitarian sex roles the cause of sex equity will be advanced. Numerous scales have been developed to measure these perceptions. Currently, one instrument seems to be the most widely used. That instrument is the Bem Sex Role Inventory (BSRI).

The BSRI also has been used for studies in Australia (Feather, 1978; Rowland, 1977), England (Whetton & Swindells, 1977), New Zealand (Hughes, 1979), Germany (Hogan, 1979), and Sweden (Carlsson & Magnusson, 1980). It has been adapted for use with the educable mentally handicapped student (Prieto & McCoy, 1979). The instrument was published in the 1977 Annual Handbook for Group

Facilitators (Jones & Pfeiffer, 1977) along with suggestions for incorporating it into training materials.

Though primarily developed as a research instrument to test hypotheses about androgyny (Bem, 1974), the BSRI has also been used as an affective evaluation instrument, particularly in vocational education (e.g., Romero & Romero, 1978; Campbell, 1978; Blimline, 1976). It is listed in the Sourcebook of Measures of Women's Educational Equity (Parks et al., 1979) as a potential evaluation tool. Throughout this flurry of activity, questions have been raised about the validity of scores obtained on sex-role instruments, including the BSRI. Kelly and Worell (1977), after a review of findings on several instruments, called for a moratorium on the development of new sex-role instruments until the validity of those already in use could be better assessed. Thomas (1978), in a review of sex-role research studies and instruments in psychology, anthropology, sociology, and education, also concluded that the operational definition of sex roles and the reliability and validity of sex-role instruments needed more careful attention.

Purpose of the Study

The purpose of this study was to investigate two questions related to the development, norms, and valid interpretations of the BSRI:

(1) Should separate norms be developed for men and women on the BSRI? i.e., are the factor structures of responses to the BSRI invariate for men and women?

(2) Are the same constructs (factors) being used when rating a general referent (e.g., American man, American woman) as when rating oneself? More specifically, are the same factors present when using the directions for scale development of the BSRI as when responding to it as a self-report?

Theoretical Rationale

Traditionally, sex-role was considered a bipolar, unidimensional concept, and measurement instruments were developed to fit this assumption. Items were given opposite weightings depending on whether they were labelled masculine or feminine. The label "masculine" or "feminine" was assigned depending on whether more males or females endorsed the item (e.g., Gough, 1952).

Bem (1974) rejected these assumptions and procedures when developing the BSRI. Instead of conceiving sex role as bipolar and unidimensional, she developed separate and orthogonal scales for masculinity and femininity. Instead of differential endorsement by males and females, she attempted to select items on the basis of American society's stereotype of masculinity and femininity. To do this, she asked judges to rate a series of traits on their

desirability in American society for a man or for a woman. Items which received significantly different desirability ratings for the two sexes were assigned to the appropriate scale. The BSRI was then used as a self-report measure where respondents were asked to indicate on a 7-point scale how true each of the traits was for themselves.

While there is no reason why items should be assigned to scales on the basis of physical sex, there is a logical flaw in Bem's procedure which has received little attention. The task of rating the desirability of a series of traits for an abstract referent may be conceptually very different from the task of rating oneself. If the conceptual basis for the self-ratings and stereotypic ratings is not similar, then confusion as to what is being measured is the likely result.

In only one study (Pedhazur & Tetenbaum, 1979) has this problem been investigated. Because of methodological problems with their study, Pedhazur and Tetenbaum were unable to draw firm conclusions based on their results. After factor analyses of desirability ratings and self-report ratings, however, they tentatively concluded that the resulting factor structures were different enough to warrant further attention.

In a second part of the same study, Pedhazur and Tetenbaum (1979), using only self-report ratings, assessed

the invariance of the factor structures for males and females. Since Bem (1974) recommended the same scoring procedure and norms for both sexes on the BSRI, the question directly addressed the validity of the score interpretation. After visual inspection of the orthogonal factor loading matrices, Pedhazur and Tetenbaum (1979) concluded that the factor structures were different for males and females, especially in the way that the items Bem labelled masculine were conceptualized. Another study (Sassenrath & Yonge, 1979), however, concluded that self-report factor structures were invariate for the two sexes.

There are other indications that the BSRI may measure different things for males and females. With sex role classification (based on BSRI scores) used as the independent variable, different results have been reported for men and women on both behavioral observations (e.g., Bem & Lenney, 1976) and self-report measures which should relate to sex role (e.g., Bem, 1977). Consistent differences have also been noted between self-ratings and ratings of others when all that was known was the sex of the other persons being rated (e.g., McKee & Sherriffs, 1959; Rosenkrantz et al., 1968; Deutsch & Gilbert, 1976). Not surprisingly, self-ratings are less stereotyped, raising further questions about the constructs underlying the ratings. Moreover, ratings of what is ideal or healthy differ from ratings of what is typical or real with ideal ratings less

stereotyped (e.g., Elman et al., 1970). Evidently, however, ratings for both men and women are pulled in the direction of the most socially desirable pole (e.g., Rosenkrantz et al., 1968).

Given that gender and sex role have been so closely tied in the past, it seems evident that the constructs used to measure sex role should be closely scrutinized for gender differences. If there are differences for men and women on sex role itself, it is also possible that differences exist on perceptions of the traits which underlie sex role. Furthermore, the task of rating the desirability for a general referent and the task of rating oneself on the same traits may be based on different sets of underlying constructs.

Significance of the Study

Federal law mandates sex equity in education. One aspect of many educational programs has been the promotion of egalitarian sex roles. Evaluation efforts in assessing the value of these programs have relied heavily on the measurement of sex-role perceptions through the use of instruments such as the BSRI. Assuming that this use will continue, it is important that its validity be carefully assessed. For users of the BSRI, it would be valuable to know if scores for males and females have the same meaning. Identification of different factor structures for males and

females might help clarify the discrepant results for males and females which often have been reported.

For test developers, it would be valuable to know whether tests constructed using one rating system (e.g., generalized desirability ratings) could then be used with results based on another rating system (e.g., self-ratings). If not, this often-used method of establishing scales would require serious reconsideration.

Identification of different factor structures for males and females or for self-ratings and desirability ratings would call into question the implicit assumption that traits have similar meanings to all respondents for all tasks. Such findings would have ramifications for any research or evaluation effort in which the examiner wishes to compare the BSRI subscores of males and females to judge the effects of an educational treatment. These findings would also have implications for research studies in which respondents are asked to rate themselves and then rate an "ideal" or "typical" individual. If different factor structures occur under different instructions, then direct comparisons of scores obtained under the two conditions would be of questionable value.

Summary

The BSRI is a widely-used sex role inventory. Rather than conceiving sex role as bipolar and unidimensional, Bem (1974) developed separate and orthogonal scales for

assessing masculinity and femininity. Items were assigned to scales based on desirability ratings for a man or woman in American society. The BSRI was then used as a self-report measure.

The purpose of this study was to investigate whether the same underlying constructs were measured when different sexes responded to the inventory and when the rating task was changed from desirability ratings to self-report ratings. Aside from providing new information on the validity of the BSRI scores, this study has general implications for the development, norming, and interpretation of other high-inference, self-report measures.

CHAPTER II

REVIEW OF THE LITERATURE

The supporting literature for the present study has been organized and reviewed in three major sections. First, the development of the Bem Sex Role Inventory (BSRI), assumptions underlying its development, and methodological criticisms are reviewed. Because Bem (1974) assigned items to scales on the basis of desirability ratings, in the second section, the meaning of "desirability" and differences found between self-ratings and ratings of a generalized referent are discussed.

The third section focuses on studies related to construct validity of the BSRI. The construct validity of the BSRI has been assessed using behavioral measures, personality measures, and factor analysis. Relevant studies from each area are summarized. Particular attention is paid to previous factor analytic studies which have presented separate results for males and females or have included factor analyses of desirability ratings.

Development of the BSRI

Bem (1974) developed her instrument in order to study the hypothesis that many individuals might be androgynous;

"that is, they might be both masculine and feminine, both assertive and yielding, both instrumental and expressive" (Bem, 1974, p. 155) depending on the situation. Conversely, she believed strongly sex-typed individuals might exhibit a more limited repertoire of behaviors across situations.

The development of the Bem Sex Role Inventory (BSRI) differed from previous instruments designed to assess sex roles. Previous scales were based on a bipolar conceptualization of masculinity and femininity (e.g., Gough, 1952). Measured on a single continuum, such scales were composed of items based on differential endorsement by males and females as they rated themselves (e.g., Strong, 1943; Gough, 1952). Bem (1974, p. 155), however, conceived of the "sex-typed person as someone who has internalized society's sex-typed standards of desirable behavior for men and women." She selected items for her scale using the criteria of (1) significant differences between desirability ratings when a man was rated and when a woman was rated, and (2) agreement between male and female judges on how desirable a characteristic was for a man or woman; e.g., if female judges gave a significantly different desirability rating for a characteristic than male judges did, that item was eliminated. Items which did not have differential endorsements for men and women were included in a social desirability scale.

The final version of the BSRI consisted of 60 items. The masculinity scale contained 20 positive traits judged to be more desirable for men than women. The femininity scale consisted of 20 positive traits judged to be more desirable for women than men. The social desirability scale contained 10 positive traits and 10 negative traits judged neutral with respect to sex.

While previous scales classified persons as either masculine or feminine, BSRI scores could be used to classify individuals as masculine, feminine, or androgynous depending on the difference between their masculinity and femininity scores. A t-ratio was used as an index of androgyny. The closer a person's score was to zero, the more androgynous.

Reliability

Bem (1974) reported internal consistency estimates using Cronbach's alpha for two samples of .86 for masculinity, .80-.82 for femininity, and .70-.75 for social desirability. Test-retest reliability coefficients over a four-week period ranged from a low of .89 for social desirability to a high of .93 for androgyny scores. Hogan (1977) reported similar reliability coefficients. Rowland (1977) obtained test-retest reliability coefficients for an Australian sample of college students over an eight-week period. For males, reliability estimates were .93 for masculinity, .80 for femininity, and .86 for androgyny.

For females, estimates were .88 for masculinity, .82 for femininity, and .91 for androgyny.

Several researchers have examined scores on the BSRI from a developmental standpoint. Hyde and Phillis (1979) tested subjects ranging in ages from 13 to 85 years. They found age differences in androgyny with greater percentages of androgynous males in the older age groups. Results for females were in the opposite direction. Another study (Abrahams, Feldman, & Nash, 1979) focused on different life situations as an indicator of change in sex role scores. They found differences in the predicted direction between groups of men and women who were living together, who had just married, and who had small children. Thus, it appears that test-retest reliability estimates are adequate when undergraduate college students are being assessed. When scores are viewed across the life span, however, fluctuations occur based on age and life situation.

Methodological Criticisms

Bem's methodology in constructing and scoring the BSRI has been criticized on several fronts. In terms of scoring, Strahan (1975) pointed out that the observations used in deriving the t-test of differences between masculinity and femininity scores were not independent, invalidating the use of the test. For example, if a

subject were feeling particularly "masculine" that day, the response for each masculine item would be elevated. He further noted that the t-ratio confounded mean level differences and variability in ratings between subjects. Since Bem (1974) stated that one of her reasons for selecting the t-ratio was its use in drawing inferences between subjects, these criticisms served to weaken her stance.

Spence, Helmreich, and Stapp (1975) attacked the scoring question on conceptual rather than on methodological grounds. They showed that individuals scoring low on both scales differed on self-esteem from individuals scoring high on both scales. They recommended the use of a median split method for classifying respondents into four types. Bem (1977) agreed that the distinction between high-high scorers and low-low scorers was warranted and supported Spence et al. (1975) in the use of the median split method.

Kelly, Furman, and Young (1978) in comparing four sex-role inventories concluded that little data existed to justify combining scores into broad typologies (e.g., masculine, feminine, androgynous). They suggested multiple regression as the preferred method for combining scores from several scales when predicting a dependent variable believed to be related to sex role. Others (Bem,

1977; Strahan, 1975; Kelly & Worrell, 1977; Pedhazur & Tetenbaum, 1979) have made similar recommendations.

Pedhazur and Tetenbaum (1979) criticized Bem for using item-by-item t-tests as a basis for item selection since the tests might capitalize on chance findings. Using discriminant function analysis, they found that two items, masculine and feminine, provided correct classification for 97.7% of the cases for the desirability ratings for men and women. Use of all 60 of the items provided 98.3% correct classification. Bem (1979) replied that her criteria of requiring significance from each of four groups of judges in order for an item to be included greatly reduced the possibility of an item being selected by chance. She noted that the use of item-by-item significance tests is an established test construction practice.

Other studies designed to cross-validate the items included in the BSRI have produced mixed results, especially for the "neutral" social desirability scale. Edwards and Ashworth (1977) first reported that they had been able to replicate Bem's (1974) results for only two items: masculine and feminine. Several items were rated in a direction opposite to that found by Bem. However, their instructions to the judges and rating scale differed considerably from Bem's. Edwards and Ashworth (1977) asked for individual perceptions whereas Bem specifically noted that societal, not personal, judgments were being

elicited. Their scale also contained "undesirable" markers where Bem's scale did not. When Walkup and Abbott (1978) used Bem's instructions and scale, they replicated Bem's results for 18 of the 20 masculine items and 19 of the 20 feminine items. However, only half of the items included in the social desirability scale were neutral with respect to sex. Pedhazur and Tetenbaum (1979) obtained similar results. They noted that masculinity and femininity item ratings were scaled in the predicted direction, but 16 of the 20 neutral items could be classified as sex-linked.

Strahan (1975) and Pedhazur and Tetenbaum (1979) found Bem's (1974) instructions to the judges for rating desirability to be vague. Strahan noted that judgments could be made either normatively or prescriptively, as things are or as they should be. The question of desirable for whom, the individual or society, was also raised.

Typical vs. Ideal Ratings of Self and Others

Questions regarding Bem's use of desirability ratings for establishing her scales really concern two related issues:

(1) What does "desirable" mean in the instructions: "Indicate how desirable it is in American society for a man/woman to possess each of these characteristics"?

(2) How do self-ratings relate to desirability ratings for a man or woman?

When Bem (1974) completed the development of the BSRI, she had a series of items with significantly different desirability ratings for a man and for a woman. When used as a self-report measure, however, she found only small differences between males and females on the way they rated themselves. Pedhazur and Tetenbaum (1979) reported the same findings.

The question of what "desirable" meant in BSRI ratings was addressed by Gilbert et al. (1978). College students were asked to describe either what a man/woman in our society is like, what is desirable for a man/woman in our society, or what a man/woman in our society should be like. These instructions corresponded to typical, desirable, and ideal ratings. Results indicated that items selected by Bem were based on prescriptive (ideal) rather than normative (typical) judgments. Some differences in interpretation of "desirable" were found for male and female judges. In particular, females did not differentiate between typical, desirable, and ideal in rating masculine items for a woman.

Downing (1978) was interested in the effect of sex role on stereotyped ratings of a male and female. She used the BSRI for self-ratings and classified subjects as masculine, feminine, or androgynous. Subjects were also asked to rate a healthy adult male and a healthy adult female using the Stereotype Questionnaire (Rosenkrantz et

al., 1968). She found that the discrepancy between the ratings of a male and a female varied according to the sex role of the rater. Though androgynous persons were the least discrepant in their ratings of a healthy male and female, in absolute terms all groups described a healthy adult male as different from a healthy adult female. Downing had hypothesized that this difference would not occur for androgynous persons. She concluded that "when information level is low, androgynous individuals describe unknown others stereotypically just as masculine and feminine individuals do" (Downing, 1978, p. 5).

Researchers who have used other checklist instruments similar to the BSRI, have noted differences between ideal ratings and typical ratings for oneself or for others. Using Sarbin's Adjective Checklist, Sherriffs and McKee (1957) found that when asked to check adjectives characteristic of themselves, there was a marked reduction from the number of adjectives checked in a previous study where respondents were asked to check adjectives generally describing men and women. This finding was particularly true for men. The authors noted that "instructions to describe men or women <u>in general</u> [italics theirs] almost invite the subjects to dismiss individual differences while instructions to describe one's <u>self</u> [italics theirs] are certain to emphasize such differences" (Sherriffs & McKee, 1957, p. 461). In another study using the Adjective Checklist,

McKee and Sherriffs (1959) found that in describing their ideal selves, both men and women selected masculine and feminine items. Women, however, were more likely to select masculine items for ideal self-descriptions than men were to select feminine items. In 1976, Deutsch and Gilbert repeated McKee and Sherriff's (1959) study using the BSRI and found basically the same results. In this study, the sequence of ratings was varied and tested for order differences; none were found.

Sex role stereotypes and self-ratings have also been studied using a bipolar format. In one study, a Stereotype Questionnaire was administered with three sets of instructions. Subjects were asked to "imagine that you are going to meet a person for the first time and the only thing you know in advance is that the person is an adult male" (Rosenkrantz et al., 1968, p. 288). Subjects then marked each item on the extent they expected the item to characterize a male. The same instructions were given for an adult female. Subjects were also asked to describe themselves. While the order of presentation of male or female instructions was varied, all subjects rated themselves last. The authors explained that self-ratings were given last in order to estabish a masculine-feminine context for the ratings.

Not surprisingly, for items found to be stereotypic and differentiating between the sexes, subjects rated

themselves as falling between their responses for males and females. While both sexes agreed on the stereotype of an adult male and female, self-ratings were different. Male subjects rated themselves as significantly more masculine than female subjects. High correlations, ranging from .69 to .84, were found between social desirability ratings and masculine, feminine, and self-ratings.

Elman et al. (1970) using a portion of the Rosenkrantz et al. (1968) Stereotype Questionnaire also compared self-ratings to ratings of others. Again, real self-ratings were seen as falling between the typical ratings of the two sexes. Ideal self-ratings were more positive than their ideal ratings for the same sex.

From the studies which have used multiple ratings (McKee & Sherriffs, 1959; Deutsch & Gilbert, 1976; Elman et al., 1970; Rosenkrantz et al., 1968) it can be concluded that masculine and feminine stereotypes emerge for both self-descriptions and for descriptions of a typical male and female. The self-description, however, is not as extreme, falling between the description of the typical man and woman. Frieze et al. (1978) in commenting on several of the above studies noted:

> The lower level of self- as opposed to stranger-stereotyping was predictable from the theory of stereotyping which indicates that stereotyping is a way of handling new situations or people about which little is known. In strange

> situations, people draw most heavily on prior experience. Thus, when asked to "describe" a person about whom nothing was known but sex, highly stereotypic responses would be probable. On the other hand, people know most about themselves. Therefore, the motivation to stereotype self-descriptions would be reduced. Also, stereotypic thinking may be less prevalent when other cues are available or when subjects have more leeway to respond to ambiguous stimuli (Frieze et al., 1978, p. 285).

Indeed, less stereotyped responding did occur when people rated their ideal selves or ideal others, ratings which relied more on personal preference and social desirability. Several studies (e.g., Rosenkrantz et al., 1968; Downing, 1978) noted that the most socially desirable pole was selected in these series of ratings.

Though it seems likely that multiple ratings could affect self-ratings, no evidence is available to confirm this. In fact, of the four studies previously cited, only two (Elman et al., 1970; Rosenkrantz et al., 1968) asked for self-ratings last. Yet all four found basically the same results. Furthermore, Deutsch and Gilbert (1976) checked for order effects and found none using a probability level of .10.

The research reviewed supports three conclusions which have direct relevance to this study: (1) Differentiation is made between self-ratings and ratings for a sex in general; (2) social desirability of the items influences ratings, especially ideal or "desirable" ratings. It is therefore

possible that what is "desirable" for a woman in modern American society (Bem's instructions for developing the BSRI) has changed since the items were originally assigned to subscales. Furthermore, different concepts may underlie self-ratings and ratings of desirability for a woman or a man. Thus, comparison of the factor structures obtained when subjects respond under these different conditions seems warranted. (3) Although it has not been confirmed that asking the same subjects to provide desirability and self-ratings may affect the outcome, it seems preferable to obtain these ratings from separate groups of subjects (randomly assigned to condition) to avoid possible carry-over effects from the the preceding instructions.

Validity and the BSRI

Using Behavioral Measures

It will be recalled that Bem (1974) hypothesized that androgynous individuals would display situationally appropriate behaviors across a variety of settings while sex-typed individuals would be unable to do so. To test her hypothesis, Bem (1975) used her instrument to divide college students into masculine, feminine, and androgynous groups. Subjects were then observed in a conformity situation (rated masculine) and while playing with a kitten (rated feminine). She found that androgynous and masculine subjects of both sexes displayed independence (considered masculine) under pressure to conform. However, results

were less clear-cut for the expressive, feminine domain. While feminine and androgynous males did play with a kitten more than masculine males, the pattern of findings for females was very ambiguous.

In order to clarify findings related to the expressive domain, two further experiments were carried out (Bem, Martyna, & Watson, 1976). In the first study, masculine, feminine, and androgynous males and females were asked to interact with an infant. A second study had subjects listen to a lonely student. Initial results for interactions with an infant showed no differences by sex or sex role. A supplementary analysis using a median split method rather than t-ratio for classifying subjects did indicate that feminine and androgynous subjects were more nurturant than masculine subjects. Androgynous and feminine subjects were also more nurturant than masculine subjects when listening to the lonely student. Ickes and Barnes (1978) using mixed sex dyads found that less interaction and interpersonal attraction occurred when both members were sex-role stereotyped.

To expand on previous findings, Bem and Lenney (1976) hypothesized that sex-typed individuals would prefer sex-appropriate activities and resist sex-inappropriate activities. Subjects were asked to select from a series of activities which ones they would rather perform for

differing amounts of money. Each subject then engaged in three masculine, three feminine, and three neutral activities. Results indicated that sex-typed individuals were less willing to engage in sex-inappropriate activities and were more uncomfortable when they did so. A main effect for sex was also reported, with males generally being less willing to engage in sex-inappropriate activities than females.

In general, then, the use of the BSRI for classifying subjects into sex-role groups is upheld for these studies. Findings are clearer, however, for males than for females, indicating that the instrument or the behavioral measures used are more valid for male college students than for their female counterparts.

Personality Measures

Based on Bem's (1974) conceptualization of androgyny, it follows that people typed as androgynous (high on masculinity and femininity) should score higher than sex-typed individuals on factors contributing to positive mental health (e.g., self-esteem). Results, however, have not always been predictable and supportive of the constructs upon which the BSRI was based.

Silvern and Ryan (1979) concluded that superior adjustment was associated with androgynous vs. traditional sex-typing only for women. Adjustment differences among

sex types were accounted for by differences in masculinity. Jones, Chernovetz, and Hansson (1978) concluded that flexibility and adjustment were generally associated with masculinity rather than androgyny for both sexes. Using an Australian sample, Antill and Cunningham (1979) found significant positive correlations between masculinity scores and self-esteem scores, and none between femininity scores and self-esteem scores for both sexes. When assessed by type, masculine and androgynous groups scored higher on self-esteem than the feminine group. Bem (1977) also noted that the relationship between sex role and self-esteem may be different for males and females. Using multiple regression analysis, she found that men who were high on masculinity were also high on self-esteem regardless of their femininity scores. High self-esteem in women, however, was related to high scores on both masculinity and femininity. Eman and Morse (1977) found that androgynous persons expressed higher degrees of self-esteem, self-acceptance, and acceptance of others than did masculine, feminine, or undifferentiated persons.

Kelly et al. (1977) took a slightly different approach in relating androgyny and adjustment. Rather than use only positive-valued traits as done with the BSRI, they asked students to rate themselves on the BSRI and interspersed 40 undesirable and sex-typed characteristics on the form. For males, they found that the undifferentiated group (low on

both masculinity and femininity) endorsed the most undesirable masculine and feminine characteristics while androgynous men endorsed the least. The pattern was different for females, with the only significant finding being that feminine-typed women were less likely to use undesirable masculine self-descriptors. They concluded that androgyny may be qualitatively different for men and women.

Several researchers have tried to relate BSRI scores and social desirability or acquiescence. Moreland and Montague (1977) correlated scores on several BSRI factors and scores on the Marlow-Crowne Social Desirability Scale but did not find significance. No significant results were found by Millimet and Votta (1979) for sex-type using responses to the Couch and Keniston Agreement Response Scale as the dependent variable. Therefore, if social desirability is a factor, it must affect all types equally.

Though findings are not completely clear-cut, it must be concluded that Bem's contention that androgynous persons should be highest in self-esteem is not upheld. Rather, masculinity is primarily related to self-esteem. Furthermore, different patterns of results are found for males and females. These findings offer additional support for investigating factor structure differences for males and females on the BSRI.

Factor Analyses of the BSRI

Using Self-report Data

It will be recalled that Bem (1974) hypothesized the existence of separate orthogonal dimensions for masculinity and femininity. Therefore, factor analytic studies should confirm this. To date, however, all studies have shown the BSRI to be more factorially complex than this. More than two dimensions have been found whether the 60-item form or the 40-item form (social desirability scale deleted) have been employed.

In three studies, separate factor analyses for males and females have been performed. Pedhazur and Tetenbaum (1979) found different factor structures for males and females. Sassenrath and Yonge (1979) reported similar results for males and females. A third study by Whetton and Swindells (1977) did not provide enough data to adequately assess similarities in factor structures between the two sexes and did not address the question. These studies are described in more detail below.

Pedhazur and Tetenbaum (1979) used a sample of 400 female and 171 male graduate students enrolled in two New York City universities. Data were collected using the 40-item version of the BSRI. Following a principal axes analysis using squared multiple correlations as communality estimates, Varimax rotations were performed using both

orthogonal and oblique (delta = 0) rotations. Since the solutions were very similar, only orthogonal solutions were reported. Pedhazur and Tetenbaum (1979) identified four interpretable factors from each analysis, accounting for 83% of the common factor variance for males and 73% for females.

For females, 18 of the 20 masculine items loaded on one factor which was labelled "assertiveness." The feminine item "shy" also loaded negatively on this factor. Males, however, differentiated assertiveness between two factors with six items loading above .35 on both factors. "Shy" also obtained a negative loading for males, but they did not include "analytic" and added "loyal."

For females, a second factor consisted of 13 feminine items. It was labelled "interpersonal sensitivity." The male factor for interpersonal sensitivity was very similar. Except for the exclusion of "loyal" and "feminine," all items loading above .35 for the two sexes agreed.

The third factor for females, which was labelled "self-sufficiency," consisted of three masculine items (self-reliant, independent, and self-sufficient) which had also loaded on the assertiveness factor. The factor also included negative loadings on two feminine items, "gullible" and "childlike." For males, the three masculine

items were included as part of one of the larger assertiveness factors. The two feminine items were not included with that factor for males.

Consistent with other studies, a bipolar masculinity-femininity factor also emerged. For females, this factor consisted of two items--"masculine" and "feminine." Males, however, included five items, grouping "athletic" with "masculine" and grouping "gullible" and "childlike" (included with the female self-sufficiency factor) with "feminine."

Pedhazur and Tetenbaum (1979) concluded that males and females differ in the way they conceptualize the items which Bem (1974) labelled "masculine." They also concluded that males and females differ in the way they view a bipolar conceptualization of masculinity and femininity.

Pedhazur and Tetenbaum did not state a particular criterion for the number of factors to rotate; they did note, however, that inclusion of a fifth factor in rotation resulted in a less clear factor structure. Given the number of high double loadings, especially for males in this study, it is possible that too few factors were rotated, resulting in factor fusion (Guertin & Bailey, 1970). Furthermore, the conclusions of the study rested on visual inspection of orthogonal factor matrices which were

obtained from separate correlation matrices. Meredith (1964) concluded that factors from separate groups could not be matched unless each measure was expressed in the same unit across groups. He also offered a proof that more differences would arise when comparisons were based on orthogonal structures than when based on oblique factor pattern structures.

By contrast, Sassenrath and Yonge (1979) reported that after separate analyses of males and females, they combined the sexes because results were so similar. Unlike Pedhazur and Tetenbaum (1979), they elicited responses from undergraduates (533 females, 361 males) who were attending school in California. Like Pedhazur and Tetenbaum (1979), they used the 40-item version of the BSRI. It was unclear how their procedures differed. They did not state whether principal axes or principal components analysis was used. They rotated those factors with eigenvalues greater than 1.00 using a Varimax procedure. Six factors were identified which accounted for 51% of the variance (Sassenrath & Yonge, 1979). Use of the term "variance" rather than "common variance" may indicate that principal components analysis was used. If so, the discrepancy in the findings between the two studies may be due to the use of principal components analysis. Rotation of a factor structure following principal components analysis can

result in blurring of the structure (Guertin & Bailey, 1970, pp. 148-153).

Speculation aside, Sassenrath and Yonge's (1979) first factor corresponded closely to Pedhazur and Tetenbaum's interpersonal sensitivity factor. It consisted of 12 feminine items (compassionate, warm, sympathetic, sensitive to needs of others, understanding, tender, gentle, affectionate, eager to soothe hurt feelings, loyal, cheerful, loves children).

Sassenrath and Yonge's second and third factors consisted mainly of masculine items. Factor II, labelled "dominance," consisted of positive loadings above .35 on the masculine items "defends beliefs," "assertive," "has strong personality," "forceful," "has leadership abilities," "takes risks," "dominant," "takes stand," "aggressive," "acts as leader," and negative loadings on the feminine items "shy" and "soft-spoken." Factor III, labelled "autonomy," consisted of the masculine items "self-reliant," "independent," "makes decisions easily," "self-sufficient," "individualistic," and "ambitious." With the exception of the item "soft-spoken," these items also loaded above .35 on the Pedhazur and Tetenbaum (1979) study. Though in both studies the items loaded between two factors, the pattern was not uniform.

Sassenrath and Yonge (1979) found two other factors consisting of masculine items. One, labelled "competition," consisted of the items "athletic," "aggressive," "competitive," and "ambitious." Another factor consisted of two items: "has leadership abilities" and "acts as a leader." With the exception of "athletic," these items appeared as part of a larger assertiveness factor for both males and females in Pedhazur and Tetenbaum's study.

A bipolar masculinity-femininity factor also appeared in Sassenrath and Yonge's results. Like the female bipolar factor reported by Pedhazur and Tetenbaum (1979), their factor consisted of two items with opposite loadings--masculine and feminine.

Sassenrath and Yonge's (1979) results supported Pedhazur and Tetenbaum's findings regarding the femininity items. They also added confirming evidence of a bipolar masculinity-femininity dimension. However, results regarding the factor structure of the masculine items clouded rather than clarified previous findings.

In both studies, numerous double loadings occurred, especially for the masculine items. While it is possible that these items are conceptually unclear, it is just as possible that the cause was failure to rotate enough

factors. Other methodological criticisms leveled against the Pedhazur and Tetenbaum (1979) study can also be applied to the work of Sassenrath and Yonge (1979).

Calling on the previous work of Whetton and Swindells (1977) offers little help in clarifying matters. They used the 60-item version, obtaining different factors. Their sample was small, consisting of 114 females and 118 males. Most frustrating, however, was the selectivity with which they presented their data. Though they reported finding 17 factors which accounted for over 70% of the common variance, they chose to report only the 5 largest factors which accounted for nearly half the common variance and "moreover could be paired meaningfully with factors from the other sex factor analysis" (Whetton & Swindells, 1977, p. 152). They did not state a cut-off criterion for an item loading to justify its inclusion in a factor for either sex. With so much uncertainty, it appeared best not to address the factorial results of this study.

No other researchers have performed separate factor analyses for males and females on the BSRI. Even though sample size, sample composition, inclusion of variables other than the items themselves, and the method of factor analysis have varied considerably from study to study (e.g., Waters et al., 1977; Collins et al., 1979; Moreland et al., 1978; Gaudreau, 1977; Feather, 1978), several conclusions across studies seem warranted:

(1) The same items almost always fail to load on any factor (e.g., yielding, flatterable, does not use harsh language, analytic).

(2) The BSRI is not two-dimensional; typically four or five factors are found.

(3) The items "masculine" and "feminine," sometimes in conjunction with several others, constitute a bipolar masculinity-femininity factor.

(4) Several feminine items (e.g., shy, soft-spoken, gullible, childlike) load as negative aspects of a factor containing mainly masculine items.

(5) The items which comprise the masculinity scale are more complex factorially than the items which comprise the femininity scale.

No one has directly assessed the impact of including or deleting the 20-item social desirability scale on the resulting factor structure. From surveys of several studies, it is clear that when the social desirability items are included a number of items designated as feminine and a number of items included in the social desirability scale load on the same factors.

Only Whetton and Swindells (1977) have performed separate factor analyses for males and females using the 60-item format. As mentioned previously, the report of

their results was sparse. It would seem important to assess differences between males and females on the factor structure of the social desirability items as well as on the masculinity and femininity items. Therefore, the 60-item form was used for this study. It is also important to note the previous factor analytic studies have suffered certain limitations due to the factor analytic procedures used which the present study was designed to overcome.

Factor Analyses Using Desirability Ratings

As noted previously, rather than assigning items to scales on the basis of differential endorsement by males and females, Bem (1974) asked her judges to rate the desirability of a list of traits for either a male or female in American society. Items were assigned to scales on the basis of differential mean responses depending on whether a man or a woman was being rated. The BSRI subsequently has been used as a self-report measure.

Only Pedhazur and Tetenbaum (1979) have assessed the factor structure of the BSRI when desirability ratings were used rather than self-report ratings. The 60-item form of the BSRI was administered to 1,464 graduate students using Bem's original instructions. Ratings for a woman were completed by 426 males and females. Ratings for a man were completed by 493 males and females. Ratings for an adult were completed by 545 males and females.

Pedhazur and Tetenbaum (1979) then performed three separate factor analyses: for a man, a woman, and an adult. Squared multiple correlations were used as initial communality estimates. Both Varimax orthogonal and oblique (delta = 0) methods were used to rotate the factor structures. Since results were so similar, only the orthogonal structures were reported.

Pedhazur and Tetenbaum concluded the factor structures were similar whether ratings of a man, woman, or adult were being elicited. In each case, they found three factors. One factor they named "assertiveness" or "instrumentality." When the referent was a man, all 20 masculine items loaded on this factor above .40, and no other items loaded. When the referent was a woman, all masculine items except "masculine" loaded along with the social desirability items "conscientious" and "conventional" (negative loadings). For an adult referent, all masculine items loaded except "masculine" and "athletic."

A second factor was named "interpersonal sensitivity." When a man was the referent, it included 15 of the 20 feminine items plus loadings on 9 of the items included in the social desirability scale (helpful, happy, reliable, truthful, sincere, likeable, friendly, adaptable, tactful). When a woman was the referent, 14 of the 15 feminine items again loaded above .40 along with 8 of the 9 previously mentioned social desirability items. For an

adult, 13 feminine and 9 social desirability items loaded; "conscientious" was included and "adaptable" excluded. The item "feminine" loaded when the referent was a woman.

The third factor was labelled "immaturity" by Pedhazur and Tetenbaum (1979). When a man was the referent, it consisted of loadings above .40 for the social desirability items "moody," "theatrical," "unpredictable," "jealous," "secretive," "conceited," "solemn," "inefficient," and "unsystematic." The feminine items "flatterable," "gullible," and "childlike" were also included. Basically, the same pattern was found when a woman was the referent, except "solemn" and "flatterable" were excluded and "shy" was added. For an adult, the same pattern for men was found except "flatterable" was excluded.

Pedhazur and Tetenbaum (1979) concluded the gender of the referent did not significantly alter the factor structure. While the items Bem labelled masculine grouped as one factor, items labelled feminine or social desirability did not group factorially as Bem named them. One factor was positive in tone and the other was not. Pedhazur and Tetenbaum (1979) did not perform separate analyses for males and females to see if they conceptually grouped the items in the same way.

Pedhazur and Tetenbaum (1979) were unable to compare their results using self-ratings and their results using desirability ratings because different forms of the instrument were used and different subjects. They noted, however:

> It seems plausible to speculate that the dimensions that underlie trait ratings differ when the task is to rate oneself and when it is to rate the desirability of the traits for an abstract referent. Assuming that similar findings are obtained in future research, one would have to question the validity of arriving at subscales for self-ratings on the basis of desirability ratings (Pedhazur & Tetenbaum, 1979, p. 1012).

The present study was designed to permit the comparison between factor structures underlying self-ratings and factor structures underlying desirability ratings that Pedhazur and Tetenbaum were unable to make.

Summary

The development of the BSRI differed from that of previous sex role measures. Instead of conceptualizing sex role as bipolar, separate masculinity and femininity scales were developed. Items were assigned to scales depending on whether they were judged more desirable for men or women in American society. Several researchers (e.g., Deutsch & Gilbert, 1976; Downing, 1978) have found that differentiation was made between self-ratings and ratings for a sex in general, and that social desirability influenced these ratings.

Studies of the construct validity of the BSRI have included use of behavioral measures, personality measures, and factor analysis. For behavioral measures, use of the BSRI for classifying subjects into sex-role groups was upheld, particularly for males. In terms of personality measures, however, results were not as clear-cut. Though Bem (1974) contended that androgynous persons should be highest in self-esteem, a majority of studies reported that masculinity was a better predictor than androgyny. Several studies (e.g., Kelly et al., 1977; Bem, 1977) reported different patterns of results for males and females. These findings tend to support the need for investigating the factor structures for male and female responses on the BSRI.

Factor analyses have not confirmed the underlying dimensions of the constructs measured by the BSRI as Bem (1974) originally structured her subscales. Of the two studies which addressed the question of sex differences in factor structure, one (Pedhazur & Tetenbaum, 1979) concluded that differences existed while a second (Sassenrath & Yonge, 1979) reported no differences. Methodological shortcomings in these studies were identified. Comparisons between self-report structures and factor structures based on desirability ratings were inconclusive because of design considerations and the small

number of studies which have addressed the question. Such equivocal findings support the need for comparisons of the factor structures obtained from males and females and comparisons of factor structures obtained under the various instructions used to obtain desirability ratings and self-report ratings on the BSRI.

CHAPTER III

METHODOLOGY

The purpose of this study was to answer the following questions related to appropriate use and interpretation of scores obtained from the BSRI: (1) Is the factor structure of the self-report ratings on the BSRI invariate for males and females? (2) Is the factor structure of the BSRI invariate for self-ratings and desirability ratings for women?

Design

Each of the above questions was addressed as a separate study. In each case, subjects completed only one form of the BSRI.

The question of male-female differences in factor pattern structures was addressed first. Students were asked to rate themselves on the BSRI and indicate their gender. Since the respondent pool had a larger proportion of females than males, when 200 females had responded, procedures for the second question were implemented while data continued to be gathered for males on the first question.

Since group administration of the BSRI was used, males were asked to take and complete a one-page white form. Females were asked to take and complete a two-page blue form. The blue form denoted that the subject was participating in the second study comparing self-report and desirability ratings.

The women who participated in the second study received instructions to either rate themselves or the desirability of the items for a woman in American society. The forms were ordered such that every other form contained the desirability instructions. In this way, the subjects were randomly assigned to treatment (instruction) conditions in the second study.

Subjects

Undergraduates enrolled in Introduction to Psychology, Human Growth and Development, and Adolescent Psychology were the subjects for the first study (221 males, 203 females). A total of 445 females from the same population were used in the second study. All subjects were students at the University of Florida. Data were collected during spring, summer, and fall of 1980, and during the winter quarter of 1981.

Instrumentation

The 60-item form of the BSRI was used. In answering questions about differences between self-ratings and

desirability ratings, Bem's (1974) original instructions and examples were utilized in eliciting responses. Subjects were also asked to complete information on their sex, age, major, and post-baccalaureate job plans. No personal identifiers were requested. A copy of the instrument can be found in Appendix A.

Data Analysis

The suggestions made by Mulaik (1972) for assessing the invariance of factor structures for separate groups were followed for this study. In particular, Mulaik (1972, pp. 356-357) cited several common mistakes which can lead to inappropriate comparisons of factors across groups. They included deriving factors from correlation instead of variance-covariance matrices, comparing factor structure (orthogonal) instead of factor pattern (oblique) coefficients, using different criteria for rotation, using different methods of extracting factors prior to rotation, failing to extract enough factors to get an accurate fix on the common factors in the variables, and failing to initially transform the compared factors to be as much alike as possible. He based his conclusions and recommendations on the previous work of Meredith (1964) and Joreskog (1969).

In order to avoid some of the above pitfalls, in each study data for the two groups being compared were standardized. Specifically, variance-covariance matrices

were formed for males, females and for the total group. A diagonal matrix was created by taking the square root of the diagonal from the total group matrix (i.e., the standard deviation for each item based on the total group). The subgroup variance-covariance matrices were pre- and postmultiplied by the inverse of that diagonal matrix. Using matrix notation, the equation was:

$$A_s = T^{-1} * A * T^{-1} \text{ where}$$

A_s = the standardized variance-covariance matrix for a given subgroup (e.g., males);

T^{-1} = the inverse of the T where T contains the standard deviations for each item in the diagonal and zeros in the off-diagonals; and

A = the variance-covariance matrix for a given subgroup.

The result was a standardized matrix which differed from a correlation matrix with "1"s in the diagonal only to the extent that the item variances for a subgroup (m) differed from the item variance for the total group (T). Specifically, the variance for item i was S^2_{im}/S^2_{iT} after it was standardized. Thus, if the variance for item i was the same for males as for the total group of males and females, $S^2_{im}/S^2_{iT} = 1.00$. If the total variance on item i exceeded the variance for males only, S^2_{im}/S^2_{iT} was less than 1.00. Dividing by the total variance would make a difference in results when, for example, the variance for a particular item was small for two subgroups, but the groups responded at opposite ends of the scale. In this case, the total

group variance would be larger than the variance for each subgroup. The effect would be to decrease the "standard variance" of the item for a subgroup to less than 1.0. In a similar fashion, the covariance for items i and j was standardized to $r_{ij}S_{im}S_{jm}/S_{iT}S_{jT}$. Again, this standardized covariance term was equal to r_{ij} when item standard deviations were the same for that subgroup and the total group, but differed when the subgroup and total groups had different variances on items i or j.

The standardized variance-covariance matrices were then submitted to a factor analytic procedure using BMD. Iterations were performed to estimate communalities. Principal axes were then obtained followed by direct oblimin (Jennrich & Sampson, 1966) rotation using gamma equal to zero. The number of factors to rotate was chosen by inspecting the results for decrements in the latent roots, the size of the latent roots and simple structure in the resulting factor patterns.

For each two factor structures to be compared, one structure was obliquely rotated while the same number of unrotated principal axes was obtained for the other group. Fixing the oblique structure, the principal axes for the other group were rotated to best fit in the least squares sense using the following formulae:

$T = (B'*B)^{-1}*B'*A$ and

$BT=B*T$ where

B = the unrotated principal axes for subgroup 1;
A = the rotated oblique factors for subgroup 2; and
BT= the rotated factors for subgroup 1.

The similarity of the resulting factor structures was assessed by calculating the coefficient of congruence (Harmon, 1960) for each matched pair of factors. Mulaik (1972, p. 355) notes that it is common practice to accept two factors as similar if the index is .90 or better. Given a factor matrix, A, and a second factor matrix, B, the coefficient of congruence was calculated using the following formula:

$$Cc_{ab} = \frac{\text{Sum } (a_j b_j)}{((\text{Sum } a_j^2)\ (\text{Sum } b_j^2))^{1/2}}$$

where a_j and b_j are elements of the column vectors $\underline{a}$ and $\underline{b}$ corresponding to the jth observed variable. According to Mulaik (1972, p. 355), the index is equivalent to finding the cosine of the angle between the column vectors of the two factor matrices.

Limitations

This study was limited to undergraduate students enrolled at the University of Florida. In particular, different results might have been obtained if a non-college sample or different age group had been used.

It is important to remember that factor analysis is a relative procedure. There are no hard and fast guidelines,

for example, on the number of factors to rotate. Another researcher might choose a slightly different number of factors to rotate and therefore would obtain different results. Results also depend upon the number and type of variables included in the analysis. Nesselroade and Baltes (1970), using random data, found that coefficients of congruence increased when more factors were rotated and decreased with more variables included in the analysis.

The procedure used in this study to assess invariance between two factor structures depends upon the same number of factors being included for each group. To the extent that the optimal number of factors differs for each group, the procedure described here will differ from a method which accounts for differing numbers of factors.

Finally, factor analysis assumes a linear relationship between variables (Guertin & Bailey, 1970). Any other relationship will be inaccurately represented by a factor analytic structure.

Summary

This study addressed two questions: (1) Is the factor structure of self-report ratings on the BSRI invariate for males and females? (2) Is the factor structure of the BSRI invariate for self-ratings and desirability ratings for women?

The 60-item form of the BSRI was completed by 221 undergraduate males and 203 undergraduate females for answering the first question. The second question was limited to females; 217 undergraduate females completed the 60-item BSRI using self-report instructions and 228 completed the BSRI using desirability rating instructions for a woman in American society.

Separate factor analyses were performed for each question. Following standardization of the variance-covariance matrix for each group, principal axes analysis with iterations to obtain communalities were obtained. Each primary factor matrix was rotated using the direct oblimin procedure. For each question, one primary factor matrix was fixed and the principal axes matrix for the second group was rotated to best fit in the least squares sense. Two factors were judged similar if the coefficient of congruence was .90 or better.

CHAPTER IV

RESULTS

The purpose of this study was to inspect and draw conclusions on the similarity of underlying constructs using responses to the Bem Sex Role Inventory (BSRI). Specifically, in the first study the invariance of the primary factor matrices was assessed for males and females. In the second study, the invariance of the primary factor matrices was assessed for females who either completed self-report or desirability ratings for a woman in American society. Responses of 221 males and 203 females comprised the data base for the first study; for the second study, 217 females completed self-report ratings and 228 females completed desirability ratings. Following a principal axes solution, the oblique primary factor matrix for one group was fixed and a second matrix rotated to similarity. Similarity of the resulting structures was assessed using the coefficient of congruence. Factors were judged as similar if the coefficient reached the criterion of .90.

Findings from this study are related to the previous work of Pedhazur and Tetenbaum (1979) and Sassenrath and Yonge (1979). Pedhazur and Tetenbaum (1979) concluded

that different factor structures existed for male and female graduate education majors using the 40-item form of the BSRI. Sassenrath and Yonge (1979), however, reported only one factor matrix, stating that similar results had been obtained for male and female undergraduates. Neither study considered the problem of metric which is inherent in separate factor analyses of males and females from correlation matrices. In addition, both studies used orthogonal rotation. Meredith (1964) pointed out that in general good matching between factor structures cannot be obtained if orthogonal rotation is used.

Results of Male vs. Female Self-report Ratings

The item means and variances for males' and females' self-report ratings can be found in Table 1. The two groups were highly similar in their mean responses with the exception of the following items: athletic, feminine, masculine, and competitive. As Pedhazur and Tetenbaum (1979) noted with their sample, both groups may be responding in a socially desirable manner. Lowest mean ratings were found for those items considered least positive.

A total of ten factors were rotated for each group. These ten factors accounted for 42% of the total variance for males and 42% of the total variance for females. A listing of the first 15 latent roots and the cumulative variance accounted for can be found in Table 2. It should

Table 1. Item means and variances for males' and females' self-report ratings

Item	Female (N=203) Mean	Female (N=203) Variance	Male (N=221) Mean	Male (N=221) Variance	Total Variance
self-reliant	5.73	1.05	5.75	.78	.91
yielding	4.57	1.40	4.39	1.63	1.52
helpful	5.99	.70	5.65	.79	.77
defends own beliefs	5.88	1.26	5.91	1.39	1.32
cheerful	5.68	.71	5.37	1.00	.88
moody	3.76	2.23	3.53	1.84	2.04
independent	5.55	1.48	5.71	1.23	1.36
shy	3.48	2.57	3.91	2.37	2.51
conscientious	5.65	1.24	5.35	1.41	1.35
athletic	4.44	3.05	5.61	2.64	3.17
affectionate	5.95	.97	5.60	1.30	1.17
theatrical	3.55	2.55	3.67	2.76	2.66
assertive	4.75	1.46	4.86	1.12	1.28
flatterable	4.53	1.61	4.45	1.83	1.72
happy	5.82	.70	5.59	.90	.82
has strong personality	5.53	1.36	5.43	1.20	1.27
loyal	6.38	.68	5.97	.97	.87
unpredictable	3.70	2.19	3.86	2.26	2.23
forceful	3.58	1.74	4.15	1.49	1.69
feminine	5.69	1.20	1.61	.88	5.22
reliable	6.17	.80	5.87	.87	.86
analytical	4.47	1.95	5.07	1.56	1.77
sympathetic	6.01	.89	5.32	1.16	1.15
jealous	3.85	2.07	3.98	2.56	2.32
leadership abilities	5.08	1.63	5.36	1.31	1.48
sensitive to needs of others	6.08	.87	5.53	1.15	1.08
truthful	6.24	.59	5.96	.67	.65
willing to take risks	4.69	1.60	5.07	1.72	1.69
understanding	6.13	.53	5.65	.70	.67

secretive	3.85	2.37	4.26	2.17	2.31
makes decisions easily	4.39	1.91	4.75	1.38	1.67
compassionate	5.92	.79	5.36	1.04	.99
sincere	6.22	.60	5.76	.83	.77
self-sufficient	5.45	1.32	5.61	1.08	1.20
eager to soothe hurt	6.06	.92	5.45	1.40	1.26
conceited	2.47	1.47	2.97	2.07	1.84
dominant	3.76	1.93	4.38	1.87	1.99
softspoken	3.72	2.24	4.20	2.32	2.33
likeable	5.70	.57	5.57	1.04	.82
masculine	1.97	1.20	5.89	.83	4.84
warm	5.75	.70	5.44	.84	.80
solemn	3.57	1.67	4.22	1.48	1.67
willing to take a stand	5.19	1.46	5.52	1.23	1.37
tender	5.60	.89	5.03	1.30	1.18
friendly	6.14	.58	5.83	.80	.72
aggressive	3.80	1.91	4.42	1.87	1.98
gullible	3.84	2.31	3.16	1.87	2.19
inefficient	2.37	1.01	2.59	1.35	1.19
acts as a leader	4.41	1.85	4.82	1.78	1.85
childlike	3.11	1.35	2.95	1.70	1.53
adaptable	5.58	1.20	5.36	1.30	1.26
individualistic	5.52	1.31	5.50	1.44	1.37
doesn't use harsh language	4.74	3.57	3.90	2.86	3.37
unsystematic	3.00	2.36	3.05	2.19	2.27
competitive	4.46	2.38	5.69	1.69	2.39
loves children	6.16	1.14	5.59	1.95	1.64
tactful	5.34	1.41	5.07	1.33	1.39
ambitious	5.81	1.03	5.66	1.29	1.17
gentle	5.91	.75	5.45	1.00	.93
conventional	4.70	1.75	4.44	2.17	1.98

Table 2. Latent roots of the unrotated orthogonal factors for males' and females' self-reports

	Males		Females	
Factor	Latent root	Cumulative % of total variance	Latent root	Cumulative % of total variance
1	8.56	15	8.10	15
2	4.39	22	4.51	23
3	2.57	27	2.52	28
4	2.05	30	1.74	31
5	1.72	33	1.37	33
6	1.48	35	1.13	35
7	1.16	37	1.07	37
8	1.05	39	.98	39
9	.85	41	.84	41
10	.77	42	.80	42
11	.70	43	.68	43
12	.64	44	.61	45
13	.57	45	.57	46
14	.55	46	.53	47
15	.48	47	.48	47

be noted that the size of the latent roots drop below 1.0 after eight factors for males and seven for females. The decrease in the size of the latent roots is fairly steady after nine or ten factors. For this reason ten factors were rotated because of the finding by Guertin et al. (1981) that overrotation is less harmful to the factor structure than underrotation and because of Mulaik's (1972) admonition against rotating too few factors.

The decision as to which factor matrix to retain as fixed was made after inspecting the results of rotation for both males and females. The female factor matrix was chosen as the target matrix because fewer double loadings above .30 were observed and the intercorrelations between the factors were lower generally (see Table 3 for factor intercorrelations).

Data presented in Tables 14-16, listed in the appendix, indicate that rotation to similarity had an impact on the resulting factor structures. Table 14 displays the primary factor loadings for female self-reports. Discussion will be based on this table in conjunction with results of Table 15, which lists the primary factor loadings for male self-reports when the matrix has been rotated to fit the female factor matrix. Table 16 contains the factor loadings for males when rotation was not constrained by the parameters of the female matrix. Previous studies (Pedhazur & Tetenbaum,

Table 3. Factor correlations for primary factors for males and females

Factor	1	2	3	4	5	6	7	8	9	10
1	-	095	189	073	241	010	154	-231	168	028
2	275	-	190	306	034	-094	050	072	137	-100
3	-036	092	-	219	141	-128	-107	-156	082	-041
4	120	124	274	-	-027	-131	035	020	108	-147
5	224	077	036	092	-	-073	054	-101	122	030
6	347	166	185	237	140	-	109	000	-031	102
7	027	054	057	-008	104	-017	-	055	004	030
8	108	089	-086	-005	-264	-017	-093	-	-084	-096
9	181	015	-023	153	082	053	-045	068	-	007
10	-065	-096	091	-018	-121	-010	105	141	065	-

NOTE: Female factor intercorrelations are listed above the diagonal. Male factor intercorrelations are below. Decimals points removed from table; correlations carried to three decimal places.

1979; Sassenrath & Yonge, 1979) have compared male and female factor structures without rotating to similarity. It should be noted that in the present study, this procedure would have resulted in more pronounced differences (i.e., comparison of Tables 14 and 16) than when rotation to similarity was used (i.e., comparison of Tables 14 and 15).

The coefficient of congruence was computed for each pair of matched factors. A criterion of .90 was established as the acceptance level for judging two factors as similar. Against this criterion, one of the ten factors was similar for males and females. Coefficients ranged from a high of .93 to a low of .53. The coefficients of congruence and all loadings of .30 for each factor pattern matrix are presented in Table 4. Discussion of results will be based on this table.

Factor 1, named interpersonal sensitivity, consisted of 13 items with loadings above .30 for females; 12 items loaded above .30 for males when the factor pattern matrix was rotated to similarity. All items belonged to either the feminine or social desirability scale. For both groups, this factor consisted of such items as: sympathetic, compassionate, understanding, eager to soothe hurt feelings, warm, gentle, and tender. These results closely parallel the findings of Pedhazur and Tetenbaum (1979) and Sassenrath and Yonge (1979) on the grouping of

Table 4. Comparisons of male and female primary factor loadings for ten factors rotated to similarity

		Female loadings	Male loadings	Coefficients of congruence
1.	Interpersonal Sensitivity			
	Items:			
	sympathetic- F	.625	.410	
	sensitive to others' needs- F	.602	.520	
	understanding- F	.602	.437	
	warm- F	.572	.501	
	compassionate- F	.543	.572	
	eager to soothe hurt feelings- F	.503	.467	
	gentle- F	.492	.513	
	helpful- F	.463	.285	
	tender- F	.456	.456	
	sincere- S	.405	.377	
	reliable- S	.374	.228	
	likeable- S	.370	.291	
	friendly- S	.361	.359	
	tactful- S	.341	.165	
	affectionate- F	.339	.470	
	truthful- S	.243	.307	
	conceited- S	-.173	-.310	.925
2.	Assertiveness			
	Items:			
	willing to take a stand -M	.688	.393	
	dominant- M	.639	.532	
	defends beliefs- M	.615	.289	
	forceful- M	.537	.390	
	aggressive- M	.523	.548	
	acts as leader- M	.508	.512	

	has leadership abilities- M	.488	.443	
	assertive- M	.469	.418	
	has strong personality- M	.466	.379	
	theatrical- S	.349	.178	
	adaptable- S	-.324	.037	
	ambitious- M	.324	.183	
	shy- F	-.136	-.400	
	soft-spoken- F	-.084	-.388	.856
3.	Self-sufficiency			
	Items:			
	independent- M	.785	.477	
	self-sufficient- M	.756	.433	
	self-reliant- M	.731	.331	
	individualistic- M	.526	.501	
	adaptable- S	.363	.342	
	analytical- M	.254	.316	
	ambitious- M	.180	.356	.825
4.	Competitiveness			
	Items:			
	Competitive- M	.650	.285	
	athletic- M	.573	.314	
	gullible- F	-.313	-.060	
	unsystematic- S	-.314	-.124	.684
5.	Positive Outlook			
	Items:			
	moody- S	-.567	-.278	
	happy- S	.563	.407	
	cheerful- F	.425	.375	
	no harsh lang.- F	.324	.114	
	friendly- S	.154	.343	.768

Table 4 - Continued

		Female loadings	Male loadings	Coefficients of congruence
6.	Introversion			
	Items:			
	secretive- S	.623	.220	
	solemn- S	.524	.221	
	soft-spoken- F	.517	.275	
	shy- F	.461	.394	.712
7.	Trustfulness			
	Items:			
	gullible- F	.520	.122	
	yielding- F	.401	.109	
	affectionate- F	.389	.206	.661
8.	Unpredictableness			
	Items:			
	unpredictable- S	.568	.329	
	unsystematic- S	.467	.269	.771
9.	Leadership			
	Items:			
	makes decisions easily	.440	.076	
	has leadership abilities- M	.380	.208	
	acts as leader- M	.375	.189	
	willing to take risks- M	.308	.037	.532
10.	Steadfastness			
	Items:			
	conscientious- S	.477	.197	

has strong personality- M	.325	-.091	
reliable- S	.311	.172	.648

Note: "M" indicates that an item was assigned to the masculinity scale.
"F" indicates that an item was assigned to the femininity scale.
"S" indicates that an item was assigned to the social desirability scale.

the feminine items in this factor. Recall that neither study included the 20 social desirability items that were part of the items in this study. This factor was judged as similar for the two groups (Cc=.925).

Factor 2, named assertiveness, consisted of 12 items for the female matrix and 10 items for males. The majority of the items belonged to the masculine scale. High loadings were found for items such as: acts as a leader, has leadership abilities, forceful, dominant, aggressive, assertive, willing to take a stand, and has strong personality. One notable discrepancy between the two matrices was that males included the feminine items "soft-spoken" and "shy" with negative loadings above .30. This factor conformed fairly well to Sassenrath and Yonge's findings for masculine items. Pedhazur and Tetenbaum noted a marked divergence between their female and male groups on a factor which contained some of these items. Using a criterion of .90, this factor was not judged as similar for males and females in this study (Cc=.856).

Factor 3 was named self-sufficiency in this study; five items loaded above .30 for females and seven for males. Some common items to both groups were: self-reliant, independent, self-sufficient, and individualistic. Almost all items were a part of the masculinity scale. These items were part of larger factors in the Pedhazur and Tetenbaum study which differed for males and

females. It is similar to a factor reported by Sassenrath and Yonge. In this study, the factor did not meet the similarity criterion (Cc=.825).

Factor 4, entitled competitiveness, consisted of a mix of four items from all three scales. Two masculine items had the highest loadings: competitive and athletic. For males, only "athletic" loaded above .30. This factor was not judged as similar for the two groups (Cc=.684).

Factor 5, named positive outlook, consisted of five items from the feminine and social desirability scales. For females, this factor was bipolar with positive loadings above .40 for the items "happy" and "cheerful" and a negative loading for "moody." For males, this factor was not as strongly bipolar. A similar factor has not previously been reported. It was judged dissimilar for the two groups (Cc=.768).

Factor 6 was an introversion factor; it consisted of four items for females: solemn, secretive, soft-spoken, and shy. For males, only "shy" loaded above .30. This factor has not been reported by previous researchers. The factor did not meet the similarity criterion (Cc=.712).

Factor 7 was rather difficult to name but tentatively was named trustfulness. For females, the factor consisted of three feminine items: gullible, yielding, and affectionate. For males, no item obtained a loading

greater than .30. The factor was not judged as similar for the two groups (Cc=.661).

Factor 8, tentatively titled unpredictableness, was a small factor with high loadings on two social desirability items: unpredictable and unsystematic. For males, only "unpredictable" had a loading greater than .30. The factor was not similar for males and females (Cc=.771).

Factor 9, named leadership, had high loadings for four masculine items; most had already loaded on another factor. For females, it consisted of positive loadings for these items: makes decisions easily, acts as a leader, has leadership abilities, and willing to take risks. No loadings above .30 were found for males on this factor. A similar factor was reported by Sassenrath and Yonge (1979). The factor did not meet the similarity criterion (Cc=.532).

Factor 10, entitled steadfastness, consisted of loadings on three items for females: conscientious, reliable, and has strong personality. No loadings above .30 were found for males on this factor. The factor was not found to be similar for the two groups (Cc=.648).

It should be noted that the factor structure discussed for males is the one which maximally fits the female structure; it is not the best fit for the interrelationships between the items for males when considered

alone. The optimal structure for males is the one reported in Table 16 of the Appendix. The greatest divergency is noted on the last four factors. While it is difficult to find one definite pattern emerging, groupings of the social desirability items appear quite different for the two sexes.

Results of Desirability vs. Self-report Ratings

The item means and variances for self-report and desirability ratings can be found in Table 5. In general, few mean differences were noted between self-report and desirability ratings for the items Bem (1974) classified as "feminine." Items which belonged to the social desirability scale and were negative in tone had lower mean responses for desirability than for self-report, indicating that these items were rated as less desirable but more frequently true. For both groups, however, mean responses were fairly low, indicating that in both cases desirability might be depressing responses. For masculine items, lower mean responses were noted under the desirability instructions than the self-report instructions. This finding indicates that college women may view themselves as more masculine than they believe is desirable in American society.

Again, a total of ten factors was rotated for each group. A display of the first 15 latent roots and the

Table 5. Item means and variances for female desirability and self-report ratings

Item	Desir. (N=228) Mean	Variance	Self (N=217) Mean	Variance	Total Variance
self-reliant	4.70	1.61	6.02	.74	1.61
yielding	4.16	1.74	4.61	1.43	1.64
helpful	6.01	.80	6.15	.59	.70
defends own beliefs	4.58	2.08	6.10	1.91	2.08
cheerful	6.06	.86	5.71	.84	.88
moody	1.94	1.90	3.91	2.27	3.06
independent	4.34	2.04	5.84	1.39	2.28
shy	3.22	1.78	3.78	2.72	2.31
conscientious	5.30	1.55	5.68	1.23	1.43
athletic	3.79	1.74	4.30	3.16	2.49
affectionate	6.14	.69	5.97	1.08	.89
theatrical	3.36	1.82	3.33	2.59	2.19
assertive	4.05	1.85	4.86	1.33	1.76
flatterable	4.83	1.81	4.62	1.89	1.86
happy	6.21	.68	5.52	.83	.79
has strong personality	4.67	2.28	5.52	1.18	1.92
loyal	6.34	.81	6.43	.53	.67
unpredictable	3.12	2.79	4.07	2.36	2.54
forceful	2.70	1.95	3.87	2.01	2.32
feminine	6.22	.74	5.75	1.25	1.04
reliable	6.09	.85	6.31	.54	.71
analytical	3.70	1.58	4.92	1.71	2.01
sympathetic	5.78	1.00	5.99	.79	.91
jealous	2.74	2.21	3.92	2.66	2.75
leadership abilities	4.24	2.03	5.18	1.88	2.17
sensitive to needs of others	6.09	.89	5.20	.59	.75
truthful	6.21	.94	6.31	.59	.77
willing to take risks	3.94	1.55	4.81	1.94	1.93
understanding	6.29	.63	6.12	.64	.64

secretive	3.07	2.27	4.11	1.97	2.39
makes decisions easily	4.68	1.39	4.47	2.03	1.71
compassionate	6.15	.66	5.93	.71	.69
sincere	6.21	.80	6.20	.61	.71
self-sufficient	4.45	1.82	5.75	1.04	1.84
eager to soothe hurt	5.79	1.18	5.99	1.06	1.13
conceited	1.66	1.11	2.63	1.82	1.69
dominant	2.21	1.56	3.79	2.28	2.53
softspoken	4.31	2.27	4.04	2.68	2.48
likeable	6.13	.85	5.76	1.67	.79
masculine	1.50	.92	1.91	1.16	1.08
warm	6.00	.87	5.78	.74	.82
solemn	3.27	2.73	3.74	2.14	2.49
willing to take a stand	4.23	1.81	5.38	1.35	1.91
tender	5.93	.91	5.60	.97	.96
friendly	6.15	.66	6.07	.73	.69
aggressive	2.95	1.98	4.01	2.32	2.42
gullible	2.60	2.16	3.59	2.36	2.50
inefficient	1.62	1.21	2.30	1.18	1.31
acts as a leader	3.74	2.08	4.57	1.94	2.18
childlike	2.27	1.61	3.04	1.89	1.89
adaptable	5.29	1.33	5.60	1.07	1.22
individualistic	4.74	2.11	5.67	1.18	1.87
doesn't use harsh language	5.29	2.81	4.57	3.37	3.16
unsystematic	2.51	1.83	3.01	2.00	1.97
competitive	3.70	1.89	4.58	2.11	2.19
loves children	6.00	1.11	6.08	1.49	1.29
tactful	5.40	1.57	5.55	1.33	1.45
ambitious	4.64	1.96	5.84	1.08	1.89
gentle	6.09	.86	5.90	.82	.85
conventional	4.62	1.66	4.64	1.81	1.73

cumulative variance accounted for is shown in Table 6. The latent roots dropped below 1.0 after five factors for the desirability ratings and after seven factors for self-report. The drop in the size of the latent roots was stable after nine or ten factors. These ten factors accounted for 50% of the total variance for the desirability ratings and 43% of the total variance for the self-report ratings. Higher intercorrelations among the factors were found for the desirability structure than the self-report structure (see Table 7). It is possible that fewer factors needed to be rotated for the desirability matrix than for the self-report matrix.

The results of the oblique rotation of the desirability factors were fixed, and the self-report matrix was rotated to similarity. Discussion will be based on the factorial results of the desirability structure with comparisons made to the primary factor loadings for female self-report ratings when rotated to similarity.

Of the ten factors, only one met the similarity criterion of .90. Coefficients of congruence ranged from a high of .91 to a low of .57 (see Table 8). All loadings above .30 for each matrix are also displayed in Table 8.

Factor 1, named assertiveness, contained many of the same masculine items reported for males and females: self-reliant, independent, assertive, self-sufficient, defends

Table 6. Latent roots of the unrotated orthogonal factors for female desirability and self-report ratings

	Desirability		Self-report	
Factor	Latent root	Cumulative % of total variance	Latent root	Cumulative % of total variance
1	9.65	17	7.17	13
2	8.96	33	5.52	23
3	3.45	39	2.35	28
4	1.06	41	1.99	31
5	1.03	42	1.50	33
6	.92	44	1.36	36
7	.84	46	1.15	39
8	.80	48	.90	40
9	.74	49	.83	42
10	.62	50	.77	43
11	.53	51	.65	44
12	.50	52	.59	45
13	.45	54	.55	46
14	.45	54	.50	47
15	.42	55	.44	48

Table 7. Factor correlations for rotated factors for desirability and self-report ratings

Factor	1	2	3	4	5	6	7	8	9	10
1	-	241	-089	126	236	167	191	-116	-117	201
2	-033	-	189	128	093	097	211	-000	-014	059
3	406	211	-	217	-096	-080	232	-011	233	-041
4	114	-051	-055	-	-003	-022	230	-039	212	168
5	-276	152	-093	132	-	042	119	-043	-150	051
6	-160	344	017	194	256	-	016	-206	-050	001
7	-045	377	140	-147	037	095	-	110	114	025
8	-070	071	-050	254	203	161	-011	-	019	-113
9	243	199	270	047	-051	039	096	064	-	-039
10	-081	264	035	-106	-004	094	170	048	016	-

NOTE: Female self-report factor intercorrelations are listed above the diagonal. Desirability factor intercorrelations are below. Decimal points removed from table; correlations carried to three decimal places.

Table 8. Comparison of self-report and desirability rating primary factor loadings for ten factors rotated to similarity

		Desirability loadings	Self-report loadings	Coefficient of congruence
1.	Assertiveness			
	Items:			
	self-reliant- M	.792	.357	
	independent- M	.778	.384	
	assertive- M	.707	.498	
	self-sufficient- M	.647	.436	
	defends beliefs- M	.618	.294	
	acts as leader- M	.604	.505	
	has leadership abilities- M	.560	.422	
	ambitious- M	.524	.236	
	analytical- M	.489	.426	
	competitive- M	.483	.319	
	willing to take a stand- M	.482	.415	
	forceful- M	.478	.465	
	individualistic- M	.439	.447	
	aggressive- M	.421	.476	
	has strong personality- M	.419	.481	
	conscientious- S	.385	.340	
	dominant- M	.381	.509	
	willing to take risks- M	.311	.455	
	decisions easy- M	.194	.452	.863
2.	Interpersonal Sensitivity			
	Items:			
	friendly- S	.761	.371	
	warm- F	.709	.566	
	tender- F	.701	.610	

	gentle- F	.619	.590	
	compassionate- F	.575	.546	
	eager to soothe hurt feelings- F	.570	.437	
	truthful- S	.562	.245	
	sensitive to others needs- F	.557	.414	
	sincere- S	.527	.423	
	understanding- F	.484	.500	
	sympathetic- F	.443	.521	
	likeable- S	.410	.272	
	affectionate- F	.342	.577	
	cheerful- F	.315	.277	
	helpful- S	.303	.361	
	loyal- F	.270	.380	.913
3.	Resourcefulness			
	Items:			
	adaptable- S	.580	.251	
	individualistic- M	.574	.207	
	tactful- S	.523	.196	
	willing to take a stand- M	.411	.197	
	ambitious- M	.374	.229	.715
4.	Active Negative Affect			
	Items:			
	jealous- S	.573	.343	
	secretive- S	.554	.265	
	unpredictable- S	.485	.301	
	conceited- S	.471	.287	
	moody- S	.403	.255	
	forceful- M	.324	.256	
	childlike- F	.180	.310	.780

Table 8 - Continued

		Desirability loadings	Self-report loadings	Coefficient of congruence
5.	Passive Negative Affect			
	Items:			
	gullible- F	.437	.341	
	no harsh lang.- F	.437	.216	
	inefficient- S	.423	.321	
	childlike- F	.379	.290	
	unsystematic- S	.323	.312	.743
6.	Not named			
	Items:			
	flatterable- S	.716	.245	
	theatrical- S	.446	.156	.694
7.	Steadfastness			
	Items:			
	conscientious- S	.623	.311	
	loyal- F	.417	.201	
	helpful- S	.358	.196	
	reliable- S	.322	.245	
	sympathetic- F	.307	.231	.739
8.	Not named			
	Items:			
	solemn- S	.611	.249	
	conventional- S	.439	.157	
	yielding- F	.398	.155	.617
9.	Not named			
	Items:			
	happy- S	.529	.268	
	cheerful- F	.379	.245	.691

10. Not named
Items:
None above .30 .572

Note: "M" designates that an item is assigned to the masculine scale.
"F" designates that an item is assigned to the feminine scale.
"S" designates that an item is assigned to the social desirability scale.

own beliefs, acts as a leader, has leadership abilities, ambitious, individualistic, has strong personality, analytical, dominant, willing to take a stand, aggressive, forceful, and competitive. This list included 18 of the 20 masculine items from Bem's scaling. In general, items which had previously been assigned to the self-sufficiency factor had lower loadings on the self-report than on the desirability matrix. Using a criterion of .90, the factor did not meet the similarity criterion for desirability and self-report ratings (Cc=.863).

Factor 2, entitled interpersonal sensitivity, was also similar to the factor of the same name reported for males and females. A total of 16 items loaded above .30 for desirability ratings on this factor including these feminine items: warm, tender, gentle, compassionate, eager to soothe hurt feelings, sensitive to the needs of others, understanding, and sympathetic. A number of social desirability items also loaded above .30. For self-report, similar results were found. The factor was judged as similar for the two conditions (Cc=.913).

Factor 3, tentatively named resourcefulness, included loadings above .30 for five items. For desirability ratings, the factor included these items: adaptable, tactful, individualistic, and willing to take a stand. No items loaded above .30 on this factor for self-report

ratings. The factor did not meet the similarity criterion for the two groups (Cc=.715).

Factors 4 and 5 both consisted mainly of items with negative connotations. Since one factor seemed composed mainly of items with an outward direction while items loading on the second factor were more passive, the factors were named active negative affect and passive negative affect respectively.

Factor 4, active negative affect, was composed mainly of items from the social desirability scale. For desirability ratings, it consisted of six items including: jealous, secretive, conceited, moody, and unpredictable. For self-report ratings, only three items loaded above .30. Similarity was not found for this factor (Cc=.780).

Factor 5, passive negative affect, included five items. For social desirability ratings, it included a mix of items Bem (1974) had assigned to the feminine and social desirability scales. The items loading above .40 were "gullible," "does not use harsh language," "inefficient," and "unsystematic." Despite loadings above .30 for most of the same items on self-report ratings, the factor did not meet the similarity criterion for the two groups (Cc=.743).

For desirability ratings, factor 6 consisted of only two items with loadings above .40: flatterable and theatrical. For self-report ratings, no items loaded

above .30. The factors did not meet the similarity criterion for the two groups (Cc=.694).

Factor 7, named steadfastness, consisted of five items. For desirability ratings, loadings above .30 were found for the social desirability items "conscientious," "helpful," and "reliable," and for the feminine items "loyal" and "sympathetic." Only "conscientious" had a loading above .30 for the self-report factor. The factor did not reach the similarity criterion (Cc=.739).

Factor 8 also did not meet the similarity criterion (Cc=.617). For desirability ratings, it consisted of loadings above .30 for three items: solemn, conventional, and yielding. No loadings above .30 were found for the self-report items on this factor.

Factor 9 consisted of loadings above .30 for two items, "happy" and "cheerful," for desirability ratings and none for self-report. The factors for the two groups did not meet the similarity criterion (Cc=.691).

Factor 10 was a "junk" factor with no loadings above .30 for either set of ratings. It did not meet the similarity criterion (Cc=.57).

As with the male and female factor structures, rotation to similarity changed the pattern of factor loadings. It is notable that the masculine items did not

cluster together in this case, nor did the femininity items. Perhaps most notable is that a bipolar masculinity-femininity factor now emerged.

Comparisons of the Female Self-report Samples

Given that the female self-report structures had different patterns of loadings when they were standardized and rotated with the males and with desirability ratings, one subsequent question became how different the two structures actually were. Therefore, the two female self-report samples were standardized on each other and rotated to similarity. The results can be found in Table 9, including the coefficients of congruence. Using the criterion of .90 applied to previous samples, two of the ten factors were judged as similar. These two factors were the interpersonal sensitivity factor and the positive outlook factor.

If, however, the coefficients of congruence were judged by where a definite drop occurred in the ten factors, the first five factors (i.e., those with coefficients greater than .85) would be judged similar. Reviewing previous comparisons with this criterion of .85, only the first two factors (i.e., interpersonal sensitivity and assertiveness) would be judged as similar for both the male/female comparison and the desirability/self-report comparison. If the assumption were made that a high coefficient indicated that a factor was stable and/or

Table 9. Comparison of female self-report primary factor loadings for both studies when rotated to similarity

1.	Interpersonal Sensitivity	Study 2 loadings	Study 1 loadings	Coefficient of congruence
	Items:			
	understanding- F	.620	.470	
	sympathetic- F	.608	.658	
	eager to soothe hurt feelings- F	.541	.433	
	sensitive to others' needs- F	.461	.561	
	loyal- F	.410	.276	
	compassionate- F	.401	.424	
	helpful- S	.399	.310	
	tactful- S	.382	.234	
	reliable- S	.215	.371	.904
2.	Assertiveness			
	Items:			
	has leadership abilities- M	.776	.484	
	acts as leader- M	.769	.484	
	soft-spoken- F	-.512	-.461	
	aggressive- M	.426	.365	
	assertive- M	.418	.292	
	dominant- M	.368	.354	
	solemn- S	-.307	-.134	
	willing to take a stand- M	.188	.309	
	ambitious- M	.253	.318	
	shy- F	-.250	-.372	.866
3.	Interpersonal Sensitivity			
	Items:			

tender- F	.652	.491	
warm- F	.645	.428	
gentle- F	.611	.446	
affectionate- F	.598	.440	
flatterable- S	.399	.159	
compassionate- F	.353	.311	
friendly- S	.350	.240	
feminine- F	.314	.203	
likeable- S	.165	.340	
has strong personality- M	.245	.398	.851
4. Self-sufficiency			
Items:			
self-sufficient- M	.697	.602	
adaptable- S	.601	.455	
independent- M	.594	.572	
self-reliant- M	.579	.532	
individualistic- M	.541	.461	
willing to take risks- M	.382	.088	
decisions easy- M	.328	.218	
analytical- M	.316	.212	.864
5. Positive Outlook			
Items:			
cheerful- F	.747	.503	
happy- S	.688	.575	
moody- S	-482	-.544	
friendly- S	.404	.281	
likeable- S	.361	.251	.905
6. Not named			
Items:			
gullible- F	.613	.288	
childlike- F	.528	.229	

Table 9 - Continued

	Study 2 loadings	Study 1 loadings	Coefficient of congruence
inefficient- S	.508	.368	
theatrical- S	.336	.230	
unsystematic- S	.324	.414	
jealous- S	.316	.172	.781
7. Not named			
Items:			
defends beliefs- M	.427	.439	
yielding- F	-,408	-.284	
unpredictable- S	.393	.168	
forceful- M	.383	.235	
has strong personality- M	.367	.208	
willing to take a stand- M	.338	.403	
loves children- F	-.338	-.148	
dominant- M	.307	.319	.817
8. Not named			
Items:			
athletic- M	.687	.398	
masculine- M	.479	.338	
competitive- M	.405	.392	
feminine- F	-.361	-.045	.767
9. Not named			
Items:			
feminine- F	.598	.230	
secretive- S	.448	.312	
conventional- S	.448	.253	

ambitious- M	.340	.050	
masculine- M	-.338	-.258	.712
10. Not named			
Items:			
conventional- S	.558	.221	
conscientious- S	.425	.332	
solemn- S	.387	.070	
unsystematic- S	-.339	-.180	
truthful- S	.328	.293	.770

Note: "M" designates that an item belongs to the masculine scale.
"F" designates that an item belongs to the feminine scale.
"S" designates that an item belongs to the social desirability scale.

replicable, five factors would be considered stable for female self-report ratings, and two would be replicable under each condition.

If the criterion for similarity was further lowered to a most liberal one of .75, nine of the ten factors would be judged similar for the two female self-report structures when standardized on each other. Using the same criterion, five of the ten factors would then be judged as similar for the male/female comparison. For the self-report/desirability comparison three of the ten would be similar. In each case, however, the loadings on the last factors were not as high or consistent, indicating that these factors may not be as stable or replicable as the first factors.

Summary

In the first study, the invariance of factor structures for males and females on self-report ratings was assessed. The procedures suggested by Mulaik (1972) were followed in comparing factor structures for these two groups. The criterion for similarity of two matched factors was a coefficient of congruence of .90. Although ten primary factors were rotated to similarity for the two groups, only one of the ten factors was judged similar. This factor, named interpersonal sensitivity, consisted of a mix of items originally keyed by Bem (1974) to the feminine and social desirability scales.

In the second study, using females only, the invariance of factor structures was assessed for self-report and desirability ratings for a woman in American society. Again, ten primary factors were rotated to similarity for the two groups, and again only one of the ten factors was judged similar. This factor was interpersonal sensitivity.

When the self-report ratings from the two female samples were standardized on one another and rotated to similarity, two of the ten factors were judged as similar using the criterion of .90. This finding indicated that the criterion of .90 may have been too stringent.

When the criterion was lowered to .85, five factors were judged as similar for the two female self-report samples. The five factors were labelled interpersonal sensitivity, assertiveness, self-sufficiency, and positive outlook. For both the male/female and the desirability/self-report comparisons, only two factors--interpersonal sensitivity and assertiveness--were judged as similar using the more liberal criterion of .85.

Thus, substantial discrepancies between the primary factor matrices occurred. While only the first five strongest factors from the female self-report primary matrix appeared replicable, this was substantially more than emerged from the comparisons of female self-report to

male self-report or female self-report to desirability ratings. It was concluded, therefore, that different constructs underlie each series of ratings. Only by including a limited set of items can valid comparisons be made between males and females or between self-report and desirability ratings on the BSRI.

CHAPTER V

DISCUSSION AND CONCLUSIONS

The purpose of this study was to assess the factorial invariance of the BSRI for two separate comparisons: (1) undergraduate males and females responding in a self-report manner; (2) undergraduate females responding in a self-report manner or rating the desirability of the items for a woman in American society. The first study had implications for interpretation of BSRI scores as they are now used in counseling, research, and program evaluation efforts. The second part of the study had implications for instrument development of any self-report inventory on which items were originally assigned to scales using desirability ratings. Results of these comparisons will be summarized and discussed in order.

Discussion of Male/Female Self-report Comparisons

The factor analyses of the 60-item BSRI resulted in ten factors tentatively named interpersonal sensitivity, assertiveness, self-sufficiency, competitiveness, positive outlook, introversion, trustfulness, unpredictableness, leadership, and steadfastness based on the female factor structure. After the factor structures were rotated to

best fit, a factor was judged to be similar for the two samples if the coefficient of congruence between matched primary factors equalled or exceeded .90. With this criterion as a guide, one factor was identified as similar for the male/female comparison. This factor, entitled interpersonal sensitivity, had been replicated previously by a number of researchers (e.g., Pedhazur & Tetenbaum, 1979; Sassenrath & Yonge, 1979). While the factor included many items Bem (1974) designated as "feminine" (e.g., warm, sympathetic, compassionate), the factor cannot be called "feminine" since the item "feminine" consistently failed to load on this factor.

The possibility was entertained that this criterion (Cc=.90) may have been too stringent. To assess this possibility, two female self-report samples were compared by standardizing the two female self-report samples using their pooled variance and rotating them to best fit. In this case, when the results should have been highly similar for the two groups (from the same population), only two of the ten factors were judged similar using a congruence criterion of .90.

The coefficients of congruence were therefore reinterpreted in light of the fact that some factors might be more replicable and stable than others. Comparing the most similar groups (i.e., the two female self-report samples standardized with their pooled variance), it was

noted that a distinct drop in the size of the coefficients occurred after the first five factors. This drop corresponded to a cut-off criterion of .85 for the coefficient of congruence.

Applying the new criterion of .85 to assess factor similarity, two factors were judged similar for the male/female comparison (as opposed to five judged similar for the female/female self-report comparison). Besides the previously mentioned interpersonal sensitivity factor, the assertiveness factor, comprised mainly of items Bem had labelled "masculine" (e.g., willing to take a stand, dominant, aggressive, acts as a leader) was now judged as similar for males and females. Again, the assertiveness factor was not labelled "masculine" because of the low loading for that item on the factor.

Previous researchers have disagreed on the composition of the assertiveness factor and the similarity of the factor for males and females. This factor was similar to one found by Sassenrath and Yonge (1979) using a 40-item form of the BSRI. They concluded the factor structure was similar for males and females when six factors were rotated. However, Pedhazur and Tetenbaum (1979) concluded that the factor was dissimilar using the 40-item form. They noted that males seemed to make a stronger differentiation between assertiveness and self-sufficiency than females did. Perhaps a clearer picture would have

emerged if Pedhazur and Tetenbaum had rotated more than four factors. In the present study a clear structure emerged for assertiveness and self-sufficiency for both sexes, possibly because more factors were rotated.

Using the female/female self-report comparison as a guide, several other factors appeared to be stable but failed to be judged as similar for males and females. It was concluded that self-sufficiency was a stable factor for females (Cc=.86) and that the factor differed for males. Following the same logic, the positive outlook factor also differed for males and females.

This study was notable for what was not found, as well as for what was. In particular, this study did not reveal a bipolar masculinity-femininity factor which had emerged in previous studies (e.g., Gaudreau, 1977; Waters et al., 1977; Pedhazur & Tetenbaum, 1979; Sassenrath & Yonge, 1979). A form of this factor did emerge when the two female self-report groups were compared; the factor was not, however, considered stable. Since this factor was typically reported as a later factor in the analysis, it seems likely that the factor emerged either as a result of rotating too few factors or from the context in which the BSRI was presented. Direct comparison between findings of this study and previous studies is not possible, however, because different factor analytic procedures were employed.

Do these findings indicate that separate scoring procedures be developed for males and females? A single scale, comprised mostly of Bem's feminine items, could be used to measure interpersonal sensitivity for both males and females. Given a certain amount of measurement error, "assertiveness" could also comprise a common scale for male and females. A number of Bem's masculine and social desirability items, however, had quite different factorial representations for males and females. Bem (1979) has announced that the BSRI was being revised and shortened based on several factor analyses. Care should be exercised, however, that the selected items do not differ factorially for males and females. Scores on the 60-item BSRI as it is now constructed should not be interpreted to have similar meanings for males and females.

Discussion of Self-report/Desirability Comparisons

Factor analyses of the 60-item BSRI resulted in ten factors for the self-report/desirability comparisons. The five major factors based on desirability ratings were named: assertiveness, interpersonal sensitivity, resourcefulness, and active and passive negative affect. The primary factor structures met the similarity criterion of .90 for only one factor: interpersonal sensitivity. The factor was very similar to the one obtained under self-report conditions for males and females.

When the criterion for similarity in this study was lowered to .85, the assertiveness factor was also judged as similar for the desirability and self-report conditions. It should be noted that some of the items loading on this factor differed from those assigned to this factor in the male/female comparison. It is notable that no self-sufficiency factor emerged under desirability instructions even though this factor had appeared and was judged similar for the female/ female self-report comparison. Thus, self-sufficiency appears to be a factor in self-ratings for females but disappears under the desirability rating condition.

Only Pedhazur and Tetenbaum (1979) have performed factor analyses of desirability ratings on the BSRI. Their interpersonal sensitivity factor had high loadings (above .40) for all of the same items reported in this study. Their factor, however, was much more inclusive, with more feminine items and social desirability items loading on the factor. The Pedhazur and Tetenbaum (1979) assertiveness factor was inclusive of the one reported in this study. Again, it could be argued that rotation of more factors might have resulted in a different picture. However, it was clear from both studies that most of the items Bem (1974) labelled "masculine" group together when rated on desirability for a woman in American society.

Implications for BSRI Users

To illustrate some practical implications that can be drawn from this study for users of the BSRI, four possible situations are described below in which BSRI scores are commonly used. Comments are offered on the appropriateness of these common practices in view of the findings in this study.

At one level, suppose a counselor were faced with the task of discussing an individual's scores on the BSRI with that person. Would it be appropriate to discuss the results in terms of masculinity, femininity, and androgyny by computing subscale scores as originally hypothesized? Although these subscales may still be used, the counselor should be aware that the traits "masculinity" and "femininity" are not unitary constructs. For example, masculinity may be factorially decomposed into traits such as "assertiveness," self-sufficiency," etc., and femininity might be decomposed into traits such as "interpersonal sensitivity" and "positive outlook." Since, in general, women rated themselves low on the item "masculine" and men low on the item "feminine" and desirability ratings were low for "masculine," these terms are highly influenced by gender and social desirability.

In conducting this study, the author noted that many people were uncomfortable when described in terms like

"masculine" and "feminine," especially if the term did not correspond to their gender. One respondent even described the study as "un-American." When the BSRI was explained in terms of "interpersonal sensitivity" and "assertiveness" dimensions, however, no problems ensued. Thus, the counselor might find discussion of individual results more acceptable and informative to counselees if terms other than "masculinity" and "femininity" were employed. Teachers might also find such terms more acceptable to parents and students.

At another level, suppose a researcher wants to compare the views of a single group composed solely of either males or females on what is desirable for a man and what is desirable for a woman in American society. Assuming that gender is constant and rating instructions are constant, the results of the present study offer no indication that such comparisons are inappropriate. Of the variety of ways in which sex role stereotypes can be compared with the BSRI, this probably remains the use most compatible with Bem's original development procedures. In this study, under desirability instructions, most items from Bem's masculine subscale loaded on a single factor (assertiveness) and most items from Bem's feminine subscale loaded on another single factor (interpersonal sensitivity). Since many of the items which Bem considered

"socially desirable" also loaded on the major feminine factor, this might indicate that the 40-item version (which excludes the social desirability scale) might be preferred for such studies.

Suppose, however, that the researcher wanted to compare the scores of women's self-perceptions to their stereotypes of the ideal woman. If the researcher obtains different results between self-perceptions and stereotypes, these differences can only be meaningfully interpreted if similar constructs underlie both sets of ratings. Results of the present study indicate that similar constructs do not underlie BSRI ratings obtained under different instructions. Only two of the ten factors compared were judged similar for self-report and desirability ratings. Thus, comparisons of scores obtained under these two sets of directions should be discouraged.

Finally, consider the researcher who desires to compare the mean self-perceptions of females against the mean self-perceptions of males. Would such a comparison be valid? Again, the findings of this study indicate that different constructs underlie the self-perceptions of males and females. Of the ten factors compared from responses of males and females, only two were judged similar. Similar scores for males and females on the BSRI do not necessarily

imply similar positions on the underlying attitude continuum. Thus, interpretation of findings from such a study could be problematic.

Implications for Future Validation Studies of the BSRI

This study has probably been the most carefully conceptualized and controlled factor analytic examination of the BSRI to date. Unlike previous studies, pains were taken to obtain an adequate sample and to provide every chance for similar findings for the two groups to arise. Substantial discrepancies between male/female perceptions and desirability/self-report instructions were still observed. It is therefore recommended that future explorations of the factor structure of the BSRI be based on separate male and female samples.

This study was restricted to a comparison of factor structures for separate subgroups. One strength of the study is the care which was taken to make the two comparison groups as similar as possible, i.e., standardization on the pooled total group variance, use of oblique factors, rotation to similarity. However, these controls weaken attempts to describe the optimal factor structure for a particular group when studied by itself. The standardization of the variance/covariance matrices may have removed variance from the score matrix which would remain in a single group factor analysis; therefore,

different factor structures could result from a single group factor analysis. From viewing the primary factor matrices given in Appendix C, it is obvious that rotation to similarity had an impact on the factor structure. Also, the procedure used in this study required an equal number of factors for each group. If desirability ratings had been considered alone, probably fewer factors could have been rotated than were required for this comparison.

For these reasons, readers are cautioned not to take the factor structures reported in this study as an optimal description of the underlying dimensions of the BSRI. A proper procedure for optimal factor location would be to separately factor analyze the BSRI for males and females or self-report and desirability ratings beginning with a raw score matrix or correlation matrix of the items for that group only. Using the standard factor analytic procedure would allow the optimal structure to emerge without the restrictions placed upon the samples employed in this study.

While factor analysis as demonstrated in this study is a valuable tool in assessing the validity of an instrument, its greatest use lies in clarifying the constructs being measured and assessing the impact of other variables on the constructs. The generalizability of the findings of this

study could be verified by applying other statistical procedures which have been developed for similar purposes. Such procedures would include transpose factor analysis, linear systems relationships analysis, and multidimensional scaling. Comparisons of results of these procedures with results obtained from the present study would provide a fruitful avenue for research.

Future Studies of Sex Role Perceptions

Although the present study focused on the use of a single instrument to measure sex role, results of the study may have broader implications for the development of other measures of the trait. For example, this study found that, in general, similar constructs do not underlie desirability ratings and self-report ratings. Therefore, instructions to the judges for instrument development and instructions to respondents under actual usage should be similar. If similar directions are not employed, the structure of an instrument which has been validated with judges may deteriorate under field study with actual subjects. In other words, scales which have been constructed using one method can not be assumed to be similar when the context is changed.

Perhaps part of the problem is a result of stereotyping a general referent about whom nothing is

known. Another part of the problem may be the social desirability response set present in Likert ratings. It might be useful to explore a forced-choice format rather than a Likert format. Under a forced-choice format, the impact of social desirability would be minimized and the stereotyping phenomenon might be reduced.

This study also points to a need to be aware of the "sex" when measuring "sex role" and helps explain in part the different results obtained for males and females when sex role is used as an independent variable (e.g., Bem & Lenney, 1976; Bem, 1977). It cannot be assumed that the same constructs are being measured in males and females even though they respond to the same set of items. Differences which arise in a research study may be as much the result of instrumentation as of an experimental manipulation.

Given that men and women hold stereotypes about masculinity and femininity and given that these terms do not adequately describe individual perceptions of sex role, one might question the usefulness of these terms. Perhaps a better way to tackle sex role measurement and the impact on sex equity would be to discover what special traits and skills are required for a specific task. For example, the number of women administrators in the public school system

is relatively small. Why? A first step might be to discover what characteristics are needed for a successful administrator: assertiveness, interpersonal sensitivity, a combination of both, or perhaps neither? Then explore what characteristics women believe they have and what characteristics they believe an administrator should have. If the three match, the problem probably lies elsewhere. If the three do not match, work on changing beliefs could begin there.

Sex equity in education has been mandated by law (e.g., P.L. 93-380). The BSRI and other sex role instruments have been applied to measure egalitarian attitudes toward sex roles based upon stereotypes and self-perceptions. Bem (1979) has stated that "the BSRI is designed to assess the extent to which the culture's definitions of desirable female and male attributes are reflected in an individual's self-description" (p. 1048). Yet results of this study indicate that these descriptions are an imperfect match. Similar scores on the BSRI for males and females do not necessarily imply similar positions on the underlying attitude continuum. Results further indicate that some form of stereotyping occurs in such a way that women do not rate themselves using the same dimensions they use when rating the desirability for an American woman. Therefore, self-comparisons to a

stereotype cannot be readily made. Many educators involved in sex-role studies appear to assume that changing stereotypes will result in changes in self-perceptions and vice-versa. This assumption has not been verified and will not be easily verified.

Summary

The purpose of this study was to explore the invariance of factor structures for males and females and for self-report and desirability ratings for women. Differences were found in both cases. Though five factors appeared stable in the female self-report samples, only two factors at most were replicated when compared both to the male self-report sample and the desirability ratings sample. This study demonstrated that the assumption of similarity across subgroups in not a wise one to make in measuring sex role perception. The constructs underlying the measurement of sex role were different for males and females. Furthermore, a caution against the use of different instructions in developing and norming instruments was sounded.

Implications for use of the BSRI in specific counseling and research situations were offered. Implications for future validation studies were also offered. The recommendation was made that the terms "masculine" and "feminine" be dropped in labelling sex role inventory

subscales. Instead, efforts to attain sex equity should focus on measuring less stereotyped and broad terms and applying measures to assess the match or mismatch between personal perceptions and perceptions of specific tasks and jobs.

APPENDIX A
BEM SEX ROLE INVENTORY
DESIRABILITY AND SELF-REPORT INSTRUCTIONS

Bem Sex Role Inventory - Desirability Instructions

We are interested in American stereotypes of masculinity and femininity. On the following pages you will be shown a large number of personality characteristics. We would like you to indicate how desirable it is in American society for a woman to possess each of these characteristics. Note: We are not interested in your personal opinion of how desirable each of these characteristics is. Rather, we want your judgment of how our society evaluates each of these characteristics in a woman.

Example: Healthy

Mark a 7 if it is considered EXTREMELY DESIRABLE In America for a woman to be healthy.

Mark a 6 if it is considered VERY DESIRABLE in America for a woman to be healthy.

Mark a 5 if it is considered QUITE DESIRABLE in America for a woman to be healthy.

Mark a 4 if it is considered MODERATELY DESIRABLE in America for a woman to be healthy.

Mark a 3 if it is considered SOMEWHAT DESIRABLE in America for a woman to be healthy.

Mark a 2 if it is considered SLIGHTLY DESIRABLE in America for a woman to be healthy.

Mark a 1 if it is considered NOT AT ALL DESIRABLE in America for a woman to be healthy.

PLEASE COMPLETE THE FOLLOWING INFORMATION:

Sex: (circle one) Male Female

Age: _____

Major: _____

Classification: _____

What job do you plan to hold after completing your education?

_____

_____

Use the following scale in responding:

1	2	3	4	5	6	7
not at all desirable	slightly desirable	somewhat desirable	moderately desirable	quite desirable	very desirable	extremely desirable

____1. Self-reliant
____2. Yielding
____3. Helpful
____4. Defends own beliefs
____5. Cheerful
____6. Moody
____7. Independent
____8. Shy
____9. Conscientious
____10. Athletic
____11. Affectionate
____12. Theatrical
____13. Assertive
____14. Flatterable
____15. Happy
____16. Has strong personality
____17. Loyal
____18. Unpredictable
____19. Forceful
____20. Feminine
____21. Reliable
____22. Analytical
____23. Sympathetic
____24. Jealous
____25. Has leadership abilities
____26. Sensitive to the needs of others
____27. Truthful
____28. Willing to take risks
____29. Understanding
____30. Secretive
____31. Makes decisions easily
____32. Compassionate
____33. Sincere
____34. Self-sufficient
____35. Eager to soothe hurt
____36. Conceited
____37. Dominant
____38. Soft-spoken
____39. Likeable
____40. Masculine
____41. Warm
____42. Solemn
____43. Willing to take a stand
____44. Tender
____45. Friendly
____46. Aggressive
____47. Gullible
____48. Inefficient
____49. Acts as a leader
____50. Childlike
____51. Adaptable
____52. Individualistic
____53. Does not use harsh language
____54. Unsystematic
____55. Competitive
____56. Loves children
____57. Tactful
____58. Ambitious
____59. Gentle
____60. Conventional

Bem Sex Role Inventory - Self-report Instructions

In this inventory, you will be presented with sixty personality characteristics. You are to use those characteristics in order to describe yourself. That is, you are to indicate, on a scale from 1 to 7, how true of you these various characteristics are. Please do not leave any characteristic unmarked.

Example: Sly

Mark 1 if it is NEVER OR ALMOST NEVER TRUE that you are sly.

Mark a 2 if it is USUALLY NOT TRUE that you are sly.

Mark a 3 if it is SOMETIMES BUT INFREQUENTLY TRUE that you are sly.

Mark a 4 if it is OCCASIONALLY TRUE that you are sly.

Mark a 5 if it is OFTEN TRUE that you are sly.

Mark a 6 if it is USUALLY TRUE that you are sly.

Mark a 7 if it is ALWAYS OR ALMOST ALWAYS TRUE that you are sly.

PLEASE COMPLETE THE FOLLOWING INFORMATION:

Sex: (circle one) Male Female

Age: _____

Major: _____

Classification: _____

What job do you plan to hold after completing your education?

_____

_____

Describe yourself according to the following scale:

1	2	3	4	5	6	7
Never or Almost Never True	Usually Not True	Sometimes But Infrequently True	Occasionally True	Often True	Usually True	Always or Almost Always True

____1. Self-reliant
____2. Yielding
____3. Helpful
____4. Defends own beliefs
____5. Cheerful
____6. Moody
____7. Independent
____8. Shy
____9. Conscientious
____10. Athletic
____11. Affectionate
____12. Theatrical
____13. Assertive
____14. Flatterable
____15. Happy
____16. Has strong personality
____17. Loyal
____18. Unpredictable
____19. Forceful
____20. Feminine
____21. Reliable
____22. Analytical
____23. Sympathetic
____24. Jealous
____25. Has leadership abilities
____26. Sensitive to the needs of others
____27. Truthful
____28. Willing to take risks
____29. Understanding
____30. Secretive
____31. Makes decisions easily
____32. Compassionate
____33. Sincere
____34. Self-sufficient
____35. Eager to soothe hurt
____36. Conceited
____37. Dominant
____38. Soft-spoken
____39. Likeable
____40. Masculine
____41. Warm
____42. Solemn
____43. Willing to take a stand
____44. Tender
____45. Friendly
____46. Aggressive
____47. Gullible
____48. Inefficient
____49. Acts as a leader
____50. Childlike
____51. Adaptable
____52. Individualistic
____53. Does not use harsh language
____54. Unsystematic
____55. Competitive
____56. Loves children
____57. Tactful
____58. Ambitious
____59. Gentle
____60. Conventional

APPENDIX B
INTERITEM CORRELATIONS BASED ON THE STANDARDIZED VARIANCE-COVARIANCE MATRICES

Table 10. Interitem correlations for the male self-report sample when standardized with the female self-report sample

	X(1) 1	X(2) 2	X(3) 3	X(4) 4	X(5) 5	X(6) 6	X(7) 7	X(8) 8	X(9) 9	X(10) 10	X(11) 11	X(12) 12	X(13) 13
1	1.000												
2	-0.001	1.000											
3	0.142	0.112	1.000										
4	0.140	0.004	0.171	1.000									
5	0.143	-0.032	0.304	0.112	1.000								
6	-0.053	0.116	-0.033	0.009	-0.228	1.000							
7	0.385	-0.061	0.031	0.155	0.107	0.030	1.000						
8	-0.130	0.165	-0.103	-0.176	-0.267	0.144	-0.089	1.000					
9	0.136	0.076	0.051	0.130	-0.073	-0.054	0.169	0.149	1.000				
10	-0.009	-0.031	0.100	-0.004	0.072	0.037	0.163	0.028	-0.015	1.000			
11	0.121	0.088	0.310	0.136	0.280	-0.019	-0.029	-0.124	0.101	0.199	1.000		
12	0.059	0.040	0.024	0.126	0.237	-0.011	0.036	-0.132	0.087	-0.175	0.154	1.000	
13	0.206	-0.045	0.147	0.312	0.224	-0.083	0.377	-0.303	0.237	0.006	0.144	0.196	1.000
14	0.036	0.064	0.058	-0.078	0.174	0.083	0.004	0.028	0.139	0.155	0.266	0.207	0.075
15	0.136	-0.099	0.285	0.068	0.609	-0.175	0.117	-0.266	-0.076	0.156	0.189	-0.057	0.198
16	0.199	-0.122	0.130	0.116	0.238	-0.094	0.264	-0.347	0.103	-0.023	0.119	0.195	0.359
17	0.255	0.056	0.219	0.301	0.043	-0.072	0.118	-0.008	0.164	-0.035	0.161	0.006	0.106
18	-0.215	0.030	-0.101	-0.066	-0.127	0.286	0.078	0.119	0.004	0.021	-0.055	0.096	-0.103
19	0.178	-0.027	0.005	0.127	0.019	0.001	0.303	-0.224	0.160	-0.020	-0.014	0.077	0.347
20	-0.047	-0.142	-0.053	-0.138	0.083	-0.046	0.115	-0.025	-0.081	-0.190	-0.072	0.146	-0.005
21	0.242	-0.046	0.240	0.184	0.076	0.036	0.121	0.031	0.293	0.038	0.224	-0.004	0.231
22	0.213	-0.061	0.036	0.255	0.044	0.056	0.197	-0.039	0.151	-0.135	0.130	0.154	0.240
23	0.068	0.232	0.148	0.199	0.114	-0.085	0.001	0.193	0.166	-0.131	0.286	0.167	0.047
24	-0.026	0.041	-0.008	-0.074	-0.041	0.240	-0.057	0.200	0.010	-0.055	0.096	0.062	-0.017
25	0.214	-0.045	0.208	0.177	0.302	0.056	0.362	-0.347	0.129	0.295	0.222	0.252	0.384
26	0.119	0.203	0.279	0.197	0.215	-0.046	0.066	-0.033	0.241	0.080	0.342	0.165	0.221
27	0.219	0.151	0.231	0.243	0.192	-0.124	0.188	-0.065	0.184	0.032	0.222	0.102	0.157
28	0.177	0.044	0.197	0.090	0.123	0.088	0.149	-0.235	-0.036	0.208	0.213	0.093	0.204
29	0.029	0.081	0.190	0.186	0.196	-0.041	0.045	-0.108	0.226	0.018	0.310	0.207	0.209
30	0.030	0.047	-0.163	0.071	-0.168	0.238	0.156	0.119	0.055	0.0	-0.118	0.038	-0.010
31	0.243	-0.040	0.117	0.208	0.144	-0.105	0.211	-0.254	0.077	0.071	0.094	0.033	0.332
32	0.154	0.195	0.329	0.172	0.272	-0.075	-0.110	-0.029	0.149	0.020	0.524	0.159	0.085
33	0.258	0.075	0.305	0.252	0.143	0.003	0.090	-0.031	0.250	0.004	0.355	0.091	0.174
34	0.385	-0.037	0.188	0.128	0.173	0.008	0.481	-0.069	0.020	0.069	0.129	0.081	0.321
35	0.100	0.241	0.251	0.174	0.155	0.011	-0.014	-0.026	0.268	-0.147	0.313	0.269	0.085
36	0.015	-0.090	-0.088	-0.125	0.028	0.161	0.137	-0.078	0.004	-0.054	-0.066	0.029	0.105
37	0.145	-0.092	0.115	0.124	0.190	0.069	0.243	-0.225	0.090	0.078	0.044	0.047	0.325
38	-0.017	0.236	0.071	-0.036	-0.054	-0.023	-0.021	0.316	0.152	-0.074	-0.008	-0.064	-0.136
39	0.124	-0.003	0.328	0.023	0.451	-0.087	0.194	-0.157	0.020	0.288	0.354	0.149	0.204
40	0.068	0.005	0.160	0.113	0.127	0.031	0.106	-0.065	0.203	0.310	0.286	0.009	0.165
41	0.122	0.066	0.243	0.117	0.380	-0.182	0.025	-0.015	0.157	0.043	0.506	0.145	0.104
42	-0.011	0.158	0.059	-0.011	-0.100	0.180	0.047	0.205	0.201	0.015	-0.003	0.048	0.094
43	0.192	0.033	0.198	0.492	0.068	0.097	0.300	-0.180	0.202	0.017	0.179	0.137	0.415
44	0.125	0.081	0.172	0.148	0.228	-0.047	0.104	-0.032	0.219	-0.098	0.439	0.214	0.211
45	0.073	-0.024	0.396	0.068	0.525	-0.172	0.039	-0.210	0.055	0.114	0.332	0.117	0.154
46	0.131	-0.057	0.105	0.152	0.003	0.124	0.224	-0.269	0.036	0.106	0.069	-0.010	0.386
47	-0.078	0.230	-0.004	0.136	-0.054	0.153	-0.092	0.109	0.058	0.022	0.040	-0.064	
48	-0.089	0.132	-0.089	-0.058	-0.050	0.048	-0.049	0.131	-0.101	-0.105	-0.175	-0.078	-0.057
49	0.131	-0.091	0.192	0.167	0.298	-0.050	0.297	-0.359	0.109	0.149	0.132	0.194	0.419
50	-0.053	0.005	-0.081	-0.047	0.072	0.076	0.048	0.073	0.084	-0.109	-0.101	0.075	-0.001

Table 10 - Continued

	X(1) 1	X(2) 2	X(3) 3	X(4) 4	X(5) 5	X(6) 6	X(7) 7	X(8) 8	X(9) 9	X(10) 10	X(11) 11	X(12) 12	X(13) 13
51	0.204	0.066	0.059	0.066	0.144	-0.027	0.323	-0.040	0.161	0.035	0.109	0.030	0.260
52	0.277	-0.058	0.048	0.104	0.122	0.020	0.513	-0.013	0.182	0.053	0.076	0.080	0.324
53	0.022	-0.003	0.089	0.023	0.146	0.027	0.082	0.033	0.110	-0.098	0.052	0.066	0.109
54	-0.151	0.097	0.040	-0.090	0.038	0.029	-0.042	0.132	-0.040	0.017	-0.009	0.052	-0.034
55	0.110	-0.036	0.039	0.082	0.015	0.069	0.131	0.028	0.078	0.506	0.101	-0.105	0.198
56	0.0	0.111	0.162	0.163	0.138	-0.084	-0.035	-0.008	0.116	0.157	0.367	0.071	0.064
57	0.063	0.062	0.145	0.152	0.119	-0.115	0.098	-0.117	0.261	-0.052	0.212	0.177	0.255
58	0.215	-0.159	0.085	0.087	0.150	-0.075	0.357	-0.150	0.083	0.183	0.129	0.106	0.280
59	0.132	0.129	0.197	0.163	0.207	-0.058	0.015	0.035	0.152	0.020	0.566	0.155	0.072
60	-0.046	0.003	0.151	0.026	0.174	0.039	-0.031	0.139	0.181	0.120	0.202	-0.028	-0.040

Table 10 - Continued

	X(14) 14	X(15) 15	X(16) 16	X(17) 17	X(18) 18	X(19) 19	X(20) 20	X(21) 21	X(22) 22	X(23) 23	X(24) 24	X(25) 25	X(26) 26
14	1.000												
15	0.046	1.000											
16	0.025	0.257	1.000										
17	-0.124	0.003	0.151	1.000									
18	0.161	-0.161	0.011	-0.122	1.000								
19	-0.026	-0.015	0.284	0.011	0.078	1.000							
20	0.045	-0.074	0.106	-0.104	0.092	0.018	1.000						
21	0.043	0.118	0.047	0.408	-0.150	-0.032	-0.324	1.000					
22	0.043	0.080	0.0	0.211	0.042	0.168	0.047	0.225	1.000				
23	0.050	-0.003	0.013	0.224	0.008	0.075	0.027	0.142	0.201	1.000			
24	0.186	-0.153	0.049	0.008	0.044	0.104	-0.063	0.032	-0.048	0.091	1.000		
25	0.106	0.197	0.388	0.184	-0.045	0.255	-0.013	0.284	0.071	-0.011	0.064	1.000	
26	0.022	0.149	0.109	0.214	-0.072	0.042	-0.057	0.284	0.060	0.394	-0.016	0.357	1.000
27	0.012	0.202	0.102	0.294	-0.053	0.057	-0.048	0.273	0.214	0.222	-0.176	0.182	0.332
28	-0.071	0.063	0.206	0.075	0.176	0.162	-0.039	0.044	0.109	-0.022	0.013	0.264	0.212
29	0.033	0.072	0.099	0.266	0.024	0.054	-0.055	0.239	0.155	0.422	-0.168	0.217	0.535
30	0.054	-0.138	0.072	0.049	0.236	0.080	0.008	0.088	0.065	-0.030	0.157	0.084	-0.078
31	-0.016	0.220	0.211	0.089	-0.052	0.165	-0.217	0.274	0.132	-0.002	-0.051	0.276	0.198
32	0.173	0.161	0.064	0.156	-0.063	0.001	-0.057	0.156	0.113	0.447	0.075	0.160	0.503
33	0.018	0.090	0.169	0.298	-0.067	-0.001	-0.131	0.370	0.128	0.302	-0.122	0.185	0.322
34	-0.057	0.129	0.176	0.066	0.045	0.199	0.067	0.112	0.195	-0.002	-0.111	0.338	0.106
35	0.125	0.026	0.066	0.105	0.016	0.113	0.051	0.099	0.050	0.439	0.062	0.146	0.427
36	0.087	0.124	0.189	-0.162	0.146	0.129	0.094	-0.129	0.034	-0.244	0.147	0.079	-0.259
37	0.097	0.189	0.359	-0.026	-0.033	0.365	0.081	0.014	0.084	-0.109	0.049	0.392	-0.098
38	-0.058	-0.004	-0.155	0.110	0.010	-0.069	0.046	0.054	0.060	0.211	-0.077	-0.193	0.121
39	0.060	0.392	0.259	0.150	-0.112	0.029	-0.024	0.171	0.055	0.021	0.023	0.329	0.290
40	0.155	0.212	0.142	0.103	-0.098	0.054	-0.360	0.280	0.013	0.060	0.012	0.236	0.189
41	0.138	0.252	0.133	0.262	-0.085	-0.025	-0.026	0.255	0.097	0.299	-0.091	0.133	0.469
42	0.109	-0.107	0.025	0.078	0.091	0.098	-0.067	0.122	0.109	0.176	0.091	0.084	0.087
43	-0.057	0.089	0.325	0.281	0.024	0.297	-0.116	0.172	0.272	0.088	-0.025	0.328	0.259
44	0.146	0.070	0.170	0.148	-0.041	0.095	0.137	0.124	0.127	0.369	0.023	0.206	0.389
45	0.120	0.450	0.295	0.197	-0.068	-0.036	-0.028	0.182	0.027	0.109	-0.101	0.217	0.275
46	-0.047	0.111	0.271	0.043	-0.026	0.414	-0.279	0.151	0.081	-0.081	0.126	0.266	-0.069
47	0.187	-0.095	0.013	-0.010	0.086	0.005	0.045	-0.033	-0.018	0.032	0.097	-0.047	0.013
48	-0.058	-0.031	-0.114	-0.078	0.091	0.091	0.032	-0.219	0.008	-0.009	0.084	-0.237	-0.172
49	0.058	0.279	0.455	0.114	-0.090	0.243	0.042	0.171	0.069	-0.025	-0.013	0.726	0.205
50	0.064	0.018	0.155	-0.065	0.239	0.130	0.318	-0.177	0.095	0.037	0.043	0.014	-0.163
51	0.016	0.193	0.183	0.168	0.028	0.139	0.053	0.130	0.130	0.054	-0.136	0.169	0.110
52	-0.050	0.060	0.258	-0.016	0.122	0.223	0.112	0.055	0.279	0.089	-0.104	0.135	0.087
53	-0.058	0.168	0.085	0.204	-0.016	0.048	0.119	0.165	0.221	0.131	-0.025	0.021	0.072
54	0.161	-0.019	0.086	-0.119	0.247	0.082	0.109	-0.220	-0.181	0.116	0.136	-0.109	-0.018
55	0.126	0.003	0.071	0.076	0.018	0.100	-0.296	0.225	0.014	-0.072	0.061	0.367	0.045
56	0.026	0.047	0.060	0.062	-0.064	0.054	0.060	0.088	-0.004	0.258	-0.087	0.188	0.246
57	0.035	0.074	0.095	0.110	-0.015	0.118	-0.027	0.199	0.079	0.179	-0.125	0.135	0.172
58	-0.062	0.183	0.268	0.192	-0.067	0.176	-0.107	0.259	0.122	0.007	-0.014	0.421	0.105
59	0.136	0.094	0.016	0.185	-0.053	-0.092	-0.005	0.250	0.131	0.317	-0.058	0.150	0.424
60	0.175	0.108	-0.102	0.141	-0.051	-0.074	-0.084	0.264	-0.054	0.105	0.083	0.023	0.089

Table 10 - Continued

	X(27) 27	X(28) 28	X(29) 29	X(30) 30	X(31) 31	X(32) 32	X(33) 33	X(34) 34	X(35) 35	X(36) 36	X(37) 37	X(38) 38	X(39) 39
27	1.000												
28	0.088	1.000											
29	0.379	0.238	1.000										
30	-0.082	0.024	-0.023	1.000									
31	0.165	0.245	0.177	0.032	1.000								
32	0.231	0.184	0.389	-0.127	0.197	1.000							
33	0.378	0.166	0.411	-0.092	0.226	0.454	1.000						
34	0.207	0.281	0.108	0.080	0.214	0.012	0.301	1.000					
35	0.316	0.004	0.368	-0.043	0.017	0.510	0.375	0.141	1.000				
36	-0.156	0.086	-0.206	0.225	0.065	-0.251	-0.162	0.181	-0.168	1.000			
37	-0.039	0.140	-0.008	0.154	0.129	-0.055	-0.025	0.259	-0.021	0.415	1.000		
38	0.197	-0.073	0.179	0.028	0.001	0.080	0.087	-0.010	0.063	-0.079	-0.248	1.000	
39	0.193	0.183	0.232	-0.149	0.198	0.222	0.154	0.188	0.098	-0.052	-0.003	0.167	1.000
40	0.245	0.103	0.230	-0.052	0.188	0.182	0.249	0.138	0.080	-0.016	0.200	0.046	0.278
41	0.328	0.062	0.413	-0.155	0.143	0.532	0.373	0.099	0.374	-0.228	-0.083	0.124	0.370
42	0.174	0.017	0.079	0.235	0.015	0.050	0.146	0.136	0.168	0.009	0.150	0.216	-0.056
43	0.266	0.318	0.220	0.042	0.359	0.195	0.324	0.354	0.184	0.085	0.211	-0.067	0.163
44	0.261	0.032	0.326	0.004	0.145	0.504	0.363	0.140	0.445	-0.139	0.034	0.123	0.216
45	0.310	0.177	0.331	-0.171	0.186	0.349	0.331	0.107	0.192	-0.171	-0.033	0.038	0.504
46	-0.029	0.238	-0.068	0.100	0.192	-0.061	0.038	0.211	0.016	0.253	0.477	-0.285	0.025
47	0.010	0.004	-0.110	0.051	-0.108	0.019	-0.049	-0.116	0.042	0.026	-0.065	0.037	-0.121
48	-0.129	-0.113	-0.152	0.028	-0.176	-0.100	-0.073	-0.046	-0.108	0.170	0.005	0.036	-0.101
49	0.152	0.146	0.103	0.076	0.242	0.113	0.110	0.305	0.130	0.228	0.494	-0.210	0.273
50	-0.010	0.031	-0.081	0.175	-0.121	-0.104	0.022	0.017	0.040	0.314	0.084	0.115	-0.045
51	0.138	0.213	0.240	0.037	0.250	0.135	0.250	0.276	0.095	0.093	0.169	0.159	0.176
52	0.207	0.205	0.129	0.060	0.215	-0.005	0.149	0.447	0.098	0.210	0.168	0.088	0.224
53	0.152	-0.013	0.120	-0.013	0.008	0.117	0.123	0.108	0.066	0.013	0.025	0.169	0.105
54	-0.096	0.060	0.068	0.081	-0.085	0.053	-0.029	-0.069	0.010	0.135	-0.018	0.049	0.027
55	-0.050	0.199	0.015	0.144	0.162	0.023	0.087	0.188	-0.026	0.085	0.249	-0.112	0.167
56	0.189	0.030	0.234	-0.111	0.049	0.349	0.252	0.001	0.294	-0.175	0.001	0.075	0.134
57	0.148	0.166	0.271	-0.041	0.302	0.202	0.268	0.149	0.246	0.004	0.040	0.106	0.151
58	0.044	0.215	0.185	0.066	0.303	0.011	0.150	0.342	-0.021	-0.040	0.153	-0.075	0.217
59	0.263	0.101	0.423	-0.034	0.173	0.582	0.416	0.144	0.384	-0.232	-0.117	0.253	0.287
60	0.072	-0.122	0.150	0.161	0.021	0.115	0.178	0.016	0.018	-0.103	0.070	0.065	0.079

Table 10 - Continued

	X(40) 40	X(41) 41	X(42) 42	X(43) 43	X(44) 44	X(45) 45	X(46) 46	X(47) 47	X(48) 48	X(49) 49	X(50) 50	X(51) 51	X(52) 52
40	1.000												
41	0.302	1.000											
42	0.093	0.016	1.000										
43	0.186	0.173	0.136	1.000									
44	0.162	0.548	0.174	0.307	1.000								
45	0.225	0.447	-0.130	0.154	0.287	1.000							
46	0.214	-0.149	0.098	0.315	-0.075	0.036	1.000						
47	-0.084	0.026	-0.002	0.007	-0.024	-0.014	-0.006	1.000					
48	-0.189	-0.154	-0.117	-0.069	-0.161	0.025	0.074	0.189	1.000				
49	0.212	0.085	0.016	0.355	0.166	0.247	0.351	-0.023	-0.117	1.000			
50	-0.120	-0.021	0.046	0.001	0.072	-0.058	-0.002	0.140	0.081	0.153	1.000		
51	0.103	0.236	-0.044	0.136	0.147	0.226	0.102	-0.032	-0.029	0.184	0.076	1.000	
52	0.109	0.129	0.018	0.299	0.123	0.109	0.126	-0.031	-0.014	0.217	0.143	0.311	1.000
53	0.018	0.176	0.193	0.033	0.102	0.143	-0.013	-0.074	0.037	0.105	0.110	0.131	0.072
54	-0.145	-0.022	0.066	-0.017	0.026	0.061	-0.005	0.057	0.277	0.002	0.231	0.004	0.059
55	0.195	-0.027	0.045	0.188	-0.022	0.042	0.295	-0.018	-0.149	0.309	-0.027	0.105	0.053
56	0.140	0.320	0.077	0.160	0.340	0.248	0.005	0.057	-0.108	0.070	0.058	0.047	0.021
57	0.204	0.280	0.093	0.220	0.331	0.157	0.015	-0.120	-0.076	0.101	-0.037	0.202	0.217
58	0.101	0.099	0.083	0.231	0.105	0.205	0.216	-0.178	-0.254	0.263	-0.165	0.241	0.189
59	0.263	0.613	0.125	0.217	0.624	0.316	-0.165	-0.025	-0.141	0.031	-0.065	0.181	0.105
60	0.171	0.099	0.142	-0.046	0.129	0.185	0.005	-0.059	-0.037	-0.038	-0.089	0.041	-0.070

	X(53) 53	X(54) 54	X(55) 55	X(56) 56	X(57) 57	X(58) 58	X(59) 59	X(60) 60
53	1.000							
54	-0.020	1.000						
55	-0.101	-0.012	1.000					
56	0.070	-0.044	0.129	1.000				
57	0.190	0.015	0.094	0.316	1.000			
58	0.068	-0.148	0.259	0.071	0.290	1.000		
59	0.133	-0.002	0.038	0.408	0.379	0.119	1.000	
60	0.054	0.026	0.100	0.135	0.125	0.092	0.195	1.000

Table 11. Interitem correlations for the female self-report sample when standardized with the male self-report sample

	X(1) 1	X(2) 2	X(3) 3	X(4) 4	X(5) 5	X(6) 6	X(7) 7	X(8) 8	X(9) 9	X(10) 10	X(11) 11	X(12) 12	X(13) 13
1	1.000												
2	-0.025	1.000											
3	0.151	0.110	1.000										
4	0.206	-0.195	0.230	1.000									
5	0.121	-0.045	0.212	0.284	1.000								
6	-0.070	-0.057	-0.094	-0.014	-0.292	1.000							
7	0.579	-0.061	0.106	0.247	0.155	-0.107	1.000						
8	-0.060	0.096	-0.154	-0.222	-0.170	0.152	-0.122	1.000					
9	0.141	0.048	0.048	0.006	-0.002	0.024	0.124	0.141	1.000				
10	0.129	-0.009	0.134	0.125	0.218	0.013	0.089	-0.238	-0.020	1.000			
11	0.010	0.159	0.241	0.026	0.196	-0.149	-0.077	-0.154	-0.002	0.159	1.000		
12	0.101	-0.136	0.126	0.225	0.091	0.077	0.073	-0.232	0.005	0.196	0.181	1.000	
13	0.244	-0.046	0.277	0.387	0.160	-0.119	0.236	-0.332	0.074	0.245	0.094	0.337	1.000
14	0.054	0.017	0.107	0.086	0.063	-0.040	0.065	-0.044	0.118	0.030	0.143	0.154	0.122
15	0.168	0.052	0.215	0.261	0.569	-0.394	0.195	-0.155	-0.037	0.143	0.205	0.146	0.229
16	0.103	-0.097	0.284	0.358	0.256	-0.108	0.176	-0.299	-0.083	0.178	0.285	0.302	0.362
17	0.320	0.008	0.347	0.171	0.153	-0.004	0.209	-0.087	0.001	-0.001	0.194	0.052	0.068
18	-0.116	-0.024	-0.136	0.011	-0.037	0.262	-0.093	0.007	-0.043	0.055	-0.054	0.163	0.044
19	0.098	-0.113	0.183	0.297	0.009	0.010	0.061	-0.133	0.040	0.178	0.011	0.262	0.384
20	0.083	0.111	0.245	0.192	0.248	-0.187	0.044	0.056	0.119	-0.002	0.261	0.098	0.088
21	0.222	0.047	0.237	0.089	0.257	-0.110	0.210	-0.037	0.265	0.091	0.083	0.004	0.146
22	0.304	-0.049	0.140	0.244	0.054	0.036	0.206	-0.052	0.053	0.140	-0.067	0.161	0.322
23	0.004	0.109	0.372	0.089	0.184	0.002	-0.061	0.026	0.177	-0.105	0.150	-0.023	-0.111
24	-0.041	-0.017	0.007	0.038	-0.051	0.193	-0.143	0.093	0.001	-0.008	0.237	0.084	-0.039
25	0.137	-0.087	0.248	0.328	0.280	-0.169	0.212	-0.307	0.013	0.200	0.223	0.408	0.434
26	0.019	0.138	0.422	0.127	0.248	-0.081	0.029	-0.129	0.114	0.050	0.279	0.022	0.019
27	0.290	0.104	0.277	0.073	0.217	-0.121	0.330	-0.054	0.100	0.010	0.186	-0.018	0.124
28	0.041	-0.102	0.235	0.099	0.074	-0.144	0.031	-0.197	-0.081	0.167	-0.008	0.251	0.152
29	0.073	0.059	0.338	0.067	0.220	-0.163	0.077	-0.087	0.025	0.014	0.237	-0.042	0.048
30	-0.026	0.065	-0.013	-0.099	-0.112	0.248	0.036	0.231	-0.053	0.037	-0.123	0.016	-0.042
31	0.202	-0.179	0.002	0.173	0.213	-0.181	0.345	-0.248	-0.106	0.098	-0.102	0.016	0.199
32	0.023	0.097	0.332	0.134	0.235	-0.153	-0.003	0.011	0.105	0.008	0.340	0.038	0.077
33	0.131	0.130	0.367	0.229	0.287	-0.147	0.106	-0.108	0.089	-0.008	0.170	0.118	0.176
34	0.564	0.001	0.131	0.299	0.256	-0.097	0.524	-0.091	0.078	0.122	-0.020	0.091	0.297
35	0.060	0.180	0.338	-0.017	0.229	-0.020	-0.026	-0.131	0.072	0.028	0.299	0.122	0.074
36	0.012	0.027	-0.080	0.084	-0.140	0.190	-0.050	0.001	0.021	0.175	0.049	0.219	0.001
37	0.132	-0.248	0.186	0.331	0.080	0.048	0.162	-0.247	-0.022	0.212	0.016	0.351	0.424
38	-0.019	0.127	-0.063	-0.074	-0.041	-0.017	-0.028	0.510	0.115	-0.209	-0.121	-0.128	-0.231
39	0.117	0.076	0.325	0.195	0.437	-0.074	0.067	-0.092	0.051	0.079	0.171	0.100	0.174
40	0.028	-0.128	-0.048	-0.018	-0.150	0.138	-0.010	-0.123	-0.077	0.251	0.007	0.153	0.092
41	-0.017	0.120	0.329	0.156	0.249	-0.064	-0.043	-0.080	0.044	0.103	0.327	0.075	0.052
42	-0.032	0.101	-0.074	-0.052	-0.127	0.058	-0.037	0.271	-0.135	-0.010	-0.088	0.039	-0.044
43	0.132	-0.207	0.242	0.655	0.250	-0.144	0.203	-0.312	-0.024	0.137	0.109	0.381	0.496
44	0.012	0.257	0.333	0.141	0.255	-0.184	0.051	-0.002	0.007	0.005	0.498	0.093	0.153
45	0.092	0.096	0.421	0.158	0.419	-0.215	0.158	-0.235	0.060	0.175	0.283	0.180	0.225
46	0.204	-0.017	0.187	0.298	-0.011	0.050	0.136	-0.258	-0.027	0.202	0.039	0.330	0.488
47	-0.041	0.290	-0.054	-0.079	-0.102	0.111	-0.190	0.155	-0.007	-0.213	0.091	-0.107	-0.228
48	-0.181	0.147	-0.213	-0.145	-0.163	0.052	-0.239	0.158	-0.039	-0.100	-0.076	-0.028	-0.263
49	0.168	-0.075	0.289	0.389	0.247	-0.159	0.212	-0.334	-0.014	0.229	0.140	0.409	0.460
50	-0.127	0.104	-0.154	-0.014	-0.133	0.162	-0.170	0.019	-0.086	0.062	0.022	0.114	-0.133

Table 11 - Continued

	X(1) 1	X(2) 2	X(3) 3	X(4) 4	X(5) 5	X(6) 6	X(7) 7	X(8) 8	X(9) 9	X(10) 10	X(11) 11	X(12) 12	X(13) 13
51	0.130	0.085	0.084	-0.013	0.112	-0.111	0.191	-0.143	-0.011	0.148	0.136	0.141	0.130
52	0.273	-0.067	0.0	0.243	0.123	-0.054	0.441	-0.041	0.059	0.051	0.003	0.146	0.247
53	0.003	0.067	0.041	-0.030	0.106	-0.175	-0.085	0.089	0.059	-0.011	-0.085	-0.015	-0.096
54	-0.276	-0.059	-0.161	-0.104	-0.144	0.036	-0.161	0.186	-0.007	-0.204	0.013	-0.024	-0.198
55	0.138	-0.115	0.120	0.171	0.116	-0.096	0.090	-0.205	0.116	0.433	0.139	0.346	0.355
56	-0.027	0.046	0.191	0.049	0.308	-0.110	-0.020	-0.009	-0.020	-0.124	0.195	0.093	0.033
57	0.167	0.023	0.194	0.171	0.138	-0.062	0.013	-0.032	0.138	-0.080	0.119	0.095	0.066
58	0.247	-0.042	0.232	0.310	0.123	-0.082	0.245	-0.237	0.166	0.122	0.089	0.254	0.368
59	0.113	0.253	0.380	0.170	0.220	-0.083	0.115	-0.020	-0.014	-0.031	0.417	0.036	0.077
60	-0.022	0.200	0.134	-0.013	0.062	-0.152	-0.126	0.028	0.119	-0.003	0.104	0.027	0.060

Table 11 - Continued

	X(14) 14	X(15) 15	X(16) 16	X(17) 17	X(18) 18	X(19) 19	X(20) 20	X(21) 21	X(22) 22	X(23) 23	X(24) 24	X(25) 25	X(26) 26
14	1.000												
15	0.100	1.000											
16	0.233	0.332	1.000										
17	0.047	0.223	0.169	1.000									
18	0.0	-0.072	-0.002	-0.160	1.000								
19	-0.058	0.023	0.298	-0.086	0.242	1.000							
20	0.183	0.332	0.191	0.162	-0.017	-0.008	1.000						
21	0.011	0.247	0.069	0.272	-0.144	0.008	0.266	1.000					
22	0.002	0.037	0.139	0.111	-0.006	0.212	0.063	0.080	1.000				
23	-0.013	0.083	0.022	0.242	-0.094	0.044	0.156	0.315	-0.019	1.000			
24	0.019	-0.158	0.073	-0.060	0.105	0.116	0.044	-0.111	0.054	0.062	1.000		
25	0.197	0.254	0.488	0.159	-0.001	0.317	0.226	0.136	0.213	0.049	0.055	1.000	
26	0.046	0.216	0.101	0.190	-0.100	0.009	0.277	0.316	0.084	0.544	0.072	0.161	1.000
27	0.041	0.268	0.144	0.500	-0.210	-0.084	0.258	0.401	0.053	0.195	-0.111	0.087	0.235
28	-0.043	0.156	0.108	0.049	0.167	0.206	0.064	-0.041	0.045	0.002	-0.003	0.334	0.081
29	-0.009	0.168	0.142	0.240	-0.047	-0.047	0.242	0.325	0.067	0.474	-0.006	0.074	0.481
30	0.012	-0.120	-0.073	-0.079	0.250	0.081	-0.014	-0.025	0.096	-0.081	0.193	-0.140	-0.009
31	0.034	0.182	0.159	0.079	0.0	0.189	0.056	0.013	0.115	-0.044	-0.075	0.296	0.070
32	0.049	0.278	0.143	0.233	-0.023	0.033	0.268	0.243	0.053	0.444	0.180	0.145	0.456
33	0.130	0.351	0.257	0.427	-0.138	-0.002	0.324	0.412	0.149	0.303	-0.105	0.194	0.297
34	0.039	0.266	0.190	0.238	-0.051	0.115	0.139	0.242	0.281	-0.059	-0.164	0.223	0.076
35	0.107	0.131	0.157	0.238	0.004	-0.046	0.176	0.265	0.036	0.407	0.097	0.187	0.378
36	0.183	-0.075	0.143	-0.107	0.214	0.233	-0.068	-0.166	-0.053	-0.146	0.171	0.093	-0.141
37	0.097	0.066	0.395	0.011	-0.015	0.494	-0.063	0.032	0.208	-0.085	0.083	0.494	-0.069
38	-0.012	0.024	-0.299	-0.046	-0.033	-0.190	0.183	0.097	-0.078	0.054	-0.039	-0.262	0.024
39	0.239	0.260	0.263	0.172	-0.058	-0.012	0.329	0.164	0.163	0.207	-0.018	0.141	0.270
40	-0.029	-0.082	0.031	-0.124	0.105	0.071	-0.400	-0.131	0.099	-0.159	-0.051	-0.031	-0.211
41	0.062	0.290	0.288	0.189	-0.015	0.019	0.356	0.300	0.029	0.279	0.069	0.168	0.376
42	-0.009	-0.090	-0.063	-0.026	0.056	0.064	0.015	-0.061	-0.126	-0.037	0.143	-0.071	-0.021
43	0.145	0.314	0.395	0.082	0.096	0.373	0.167	0.112	0.176	0.051	-0.059	0.512	0.136
44	0.107	0.293	0.270	0.147	-0.021	0.027	0.374	0.204	0.029	0.316	0.119	0.196	0.368
45	0.137	0.313	0.315	0.149	-0.034	0.101	0.217	0.234	0.137	0.206	0.033	0.321	0.369
46	0.061	0.034	0.372	-0.016	0.037	0.392	-0.042	-0.003	0.224	-0.161	0.126	0.341	-0.107
47	0.060	-0.023	-0.030	-0.035	-0.006	-0.161	0.014	-0.152	-0.222	0.039	0.170	-0.167	-0.012
48	0.018	-0.110	-0.189	-0.228	0.132	-0.054	-0.063	-0.349	-0.194	-0.054	0.052	-0.238	-0.173
49	0.167	0.283	0.454	0.105	0.015	0.372	0.237	0.101	0.257	-0.006	-0.036	0.805	0.098
50	-0.033	-0.083	-0.067	-0.081	0.048	-0.002	-0.131	-0.168	-0.019	-0.033	0.096	-0.063	-0.041
51	0.144	0.071	0.086	0.105	0.044	-0.102	0.011	0.143	0.167	0.021	-0.171	0.156	0.045
52	0.109	0.135	0.197	0.157	0.102	0.058	0.038	0.089	0.119	-0.118	-0.061	0.115	0.015
53	0.006	0.213	-0.054	0.087	-0.108	-0.008	0.162	0.125	-0.055	0.119	-0.099	-0.020	0.168
54	0.029	-0.062	-0.160	-0.211	0.197	-0.117	0.082	-0.207	-0.355	-0.066	0.025	-0.137	-0.133
55	0.100	0.119	0.234	-0.061	0.086	0.367	0.067	0.092	0.234	-0.176	0.028	0.332	-0.038
56	-0.026	0.251	0.023	0.096	-0.062	0.031	0.207	0.234	-0.043	0.244	0.006	0.256	0.275
57	0.053	0.137	-0.003	0.176	0.009	0.020	0.277	0.282	0.193	0.222	0.044	0.140	0.227
58	0.064	0.154	0.328	0.123	0.032	0.235	0.171	0.231	0.189	0.085	-0.043	0.444	0.186
59	0.152	0.252	0.250	0.233	-0.073	0.040	0.392	0.308	0.073	0.344	0.102	0.148	0.352
60	0.096	0.203	0.055	0.153	-0.147	0.051	0.184	0.161	0.027	0.162	0.091	0.125	0.150

Table 11 - Continued

	X(27) 27	X(28) 28	X(29) 29	X(30) 30	X(31) 31	X(32) 32	X(33) 33	X(34) 34	X(35) 35	X(36) 36	X(37) 37	X(38) 38	X(39) 39
27	1.000												
28	0.072	1.000											
29	0.219	0.178	1.000										
30	-0.095	-0.069	-0.027	1.000									
31	0.087	0.177	0.102	-0.024	1.000								
32	0.233	-0.015	0.415	-0.031	0.051	1.000							
33	0.480	0.060	0.348	-0.127	0.068	0.488	1.000						
34	0.246	-0.002	0.161	-0.023	0.255	0.081	0.279	1.000					
35	0.289	0.020	0.411	-0.034	-0.009	0.444	0.317	0.086	1.000				
36	-0.142	0.136	-0.182	0.092	0.064	-0.181	-0.196	-0.009	-0.105	1.000			
37	-0.034	0.205	-0.063	-0.077	0.149	-0.101	0.040	0.165	-0.004	0.239	1.000		
38	0.085	-0.165	-0.003	0.189	-0.109	0.143	0.118	-0.039	0.054	-0.135	-0.321	1.000	
39	0.152	-0.059	0.298	0.021	-0.058	0.228	0.338	0.206	0.240	-0.139	0.035	0.141	1.000
40	-0.145	0.101	-0.152	0.030	-0.084	-0.139	-0.187	-0.061	-0.031	0.155	0.165	-0.098	-0.120
41	0.264	0.027	0.370	0.014	0.014	0.472	0.423	0.081	0.367	-0.035	0.065	0.115	0.439
42	-0.073	-0.029	-0.009	0.325	0.034	0.043	-0.016	-0.078	-0.064	-0.010	-0.072	0.289	-0.055
43	-0.016	0.319	0.093	-0.193	0.214	0.155	0.190	0.319	0.076	0.171	0.447	-0.129	0.193
44	0.216	0.021	0.380	0.029	0.044	0.470	0.289	0.111	0.421	-0.003	-0.026	0.144	0.349
45	0.179	0.160	0.328	-0.142	0.120	0.277	0.335	0.289	0.193	-0.081	0.084	-0.110	0.439
46	0.007	0.205	-0.040	-0.028	0.076	-0.026	0.028	0.196	0.039	0.209	0.492	-0.275	0.015
47	-0.061	-0.034	-0.013	0.043	-0.237	0.105	0.056	-0.058	0.066	0.093	-0.235	0.082	-0.063
48	-0.272	0.040	-0.194	-0.004	-0.141	-0.148	-0.257	-0.288	-0.119	0.161	-0.071	0.118	-0.149
49	0.088	0.271	-0.026	-0.165	0.358	0.142	0.221	0.325	0.114	0.125	0.468	-0.193	0.177
50	-0.091	-0.027	-0.093	0.063	-0.149	0.038	-0.067	-0.173	-0.046	0.076	0.026	0.098	-0.100
51	0.119	0.094	0.090	-0.054	0.158	-0.008	0.105	0.304	0.107	-0.127	-0.034	-0.137	0.108
52	0.040	-0.085	0.108	0.020	0.106	0.011	0.077	0.319	-0.108	-0.045	0.172	-0.089	0.106
53	0.128	-0.063	-0.024	-0.091	-0.015	0.102	0.040	-0.012	0.092	-0.029	-0.107	0.240	0.044
54	-0.101	0.043	-0.134	-0.160	-0.156	-0.044	-0.214	-0.262	-0.088	0.034	-0.055	0.134	-0.130
55	0.016	0.178	-0.074	-0.001	0.128	-0.002	-0.036	0.066	-0.014	0.184	0.368	-0.168	-0.001
56	0.149	0.130	0.183	-0.104	0.078	0.254	0.237	0.088	0.217	-0.051	-0.024	0.081	0.167
57	0.239	0.035	0.247	0.040	0.126	0.286	0.282	0.189	0.192	0.032	0.036	0.062	0.209
58	0.148	0.145	0.133	-0.178	0.136	0.092	0.162	0.276	0.167	0.083	0.296	-0.152	0.142
59	0.343	0.041	0.394	0.004	0.041	0.418	0.406	0.170	0.437	-0.041	-0.052	0.177	0.370
60	0.091	-0.059	0.096	0.096	0.087	0.229	0.150	-0.065	0.064	0.066	-0.028	-0.032	0.050

Table 11 - Continued

	X(40) 40	X(41) 41	X(42) 42	X(43) 43	X(44) 44	X(45) 45	X(46) 46	X(47) 47	X(48) 48	X(49) 49	X(50) 50	X(51) 51	X(52) 52
40	1.000												
41	-0.132	1.000											
42	-0.102	0.054	1.000										
43	0.004	0.140	-0.037	1.000									
44	-0.242	0.516	0.052	0.225	1.000								
45	-0.127	0.306	-0.111	0.236	0.331	1.000							
46	0.167	-0.039	-0.072	0.357	0.038	0.103	1.000						
47	-0.144	-0.048	0.035	-0.180	0.081	0.055	-0.065	1.000					
48	0.105	-0.187	0.033	-0.195	-0.120	-0.247	-0.098	0.226	1.000				
49	-0.076	0.146	-0.162	0.542	0.175	0.285	0.386	-0.151	-0.222	1.000			
50	0.162	-0.008	0.017	-0.072	0.027	-0.142	-0.005	0.138	0.261	-0.045	1.000		
51	0.023	-0.037	-0.075	0.094	0.078	0.347	-0.029	-0.106	-0.089	0.162	-0.082	1.000	
52	-0.008	0.001	0.010	0.199	0.039	0.131	0.151	-0.077	-0.054	0.081	0.058	0.242	1.000
53	-0.187	-0.006	0.099	0.015	0.028	0.043	-0.129	0.139	0.114	0.031	0.029	-0.074	-0.030
54	0.039	-0.121	0.055	-0.080	-0.073	-0.221	-0.235	0.115	0.384	-0.178	0.140	-0.128	0.030
55	0.115	0.039	-0.026	0.248	0.057	0.159	0.343	-0.194	-0.134	0.386	0.033	0.082	0.072
56	-0.344	0.202	0.062	0.175	0.279	0.256	-0.012	0.093	-0.065	0.176	-0.091	0.092	-0.064
57	-0.203	0.302	0.062	0.128	0.244	0.194	0.061	0.012	-0.146	0.197	-0.068	0.149	-0.022
58	-0.117	0.179	-0.051	0.338	0.113	0.319	0.382	-0.065	-0.303	0.373	-0.169	0.091	0.167
59	-0.246	0.491	0.086	0.132	0.627	0.263	0.093	0.065	-0.162	0.127	-0.105	0.074	-0.010
60	-0.220	0.195	0.184	0.016	0.224	0.078	-0.043	0.070	-0.007	0.125	0.076	0.091	-0.088

	X(53) 53	X(54) 54	X(55) 55	X(56) 56	X(57) 57	X(58) 58	X(59) 59	X(60) 60
53	1.000							
54	0.134	1.000						
55	0.065	-0.142	1.000					
56	0.118	-0.076	-0.001	1.000				
57	0.036	-0.153	-0.003	0.306	1.000			
58	0.008	-0.131	0.317	0.130	0.200	1.000		
59	0.006	-0.158	-0.031	0.367	0.281	0.224	1.000	
60	0.134	-0.116	0.167	0.189	0.171	0.035	0.194	1.000

Table 12. Interitem correlations for the desirability ratings sample when standardized with the second female self-report sample

	X(1) 1	X(2) 2	X(3) 3	X(4) 4	X(5) 5	X(6) 6	X(7) 7	X(8) 8	X(9) 9	X(10) 10	X(11) 11	X(12) 12	X(13) 13
1	1.000												
2	0.127	1.000											
3	0.121	0.204	1.000										
4	0.199	-0.121	0.076	1.000									
5	0.097	-0.059	0.192	0.037	1.000								
6	-0.077	-0.046	-0.094	0.0	-0.325	1.000							
7	0.491	-0.041	0.083	0.178	0.017	0.027	1.000						
8	-0.111	0.097	0.015	-0.134	-0.146	0.223	-0.174	1.000					
9	0.198	0.113	0.192	0.104	0.061	-0.016	0.084	0.151	1.000				
10	0.145	0.034	0.130	0.154	0.229	-0.020	0.095	-0.088	0.035	1.000			
11	-0.009	-0.043	0.237	0.128	0.394	-0.108	0.015	-0.198	0.0	0.129	1.000		
12	0.052	-0.030	-0.020	0.242	0.017	0.017	0.170	-0.213	-0.081	0.128	0.119	1.000	
13	0.266	-0.082	0.080	0.328	0.115	-0.031	0.290	-0.398	0.056	0.228	0.128	0.279	1.000
14	-0.022	0.089	0.039	0.012	0.037	0.181	-0.005	-0.047	-0.053	0.074	0.177	0.186	0.166
15	0.029	-0.051	0.243	0.116	0.678	-0.250	0.034	-0.100	0.067	0.208	0.418	-0.038	0.143
16	0.246	-0.161	0.029	0.305	0.243	-0.022	0.305	-0.354	0.065	0.333	0.210	0.310	0.564
17	0.205	0.018	0.373	0.245	0.178	-0.013	0.200	0.103	0.171	0.105	0.229	-0.058	0.005
18	0.042	-0.183	-0.108	0.133	-0.097	0.184	0.117	-0.072	-0.130	0.041	0.016	0.217	0.241
19	0.059	-0.144	-0.088	0.222	-0.090	0.116	0.100	-0.183	-0.047	0.080	-0.052	0.289	0.466
20	0.136	0.107	0.102	-0.017	0.160	-0.042	0.040	0.030	0.063	-0.083	0.173	0.025	0.002
21	0.297	0.081	0.311	0.128	0.037	-0.031	0.192	0.061	0.345	0.025	0.120	-0.126	0.024
22	0.259	0.028	0.034	0.221	-0.150	0.013	0.185	0.041	0.207	0.044	-0.071	0.052	0.215
23	0.103	0.204	0.336	0.083	0.148	0.078	0.144	0.051	0.170	0.067	0.265	0.071	-0.016
24	-0.154	0.013	-0.017	-0.031	-0.077	0.276	-0.086	0.057	-0.176	0.040	-0.040	0.165	-0.062
25	0.221	-0.031	0.247	0.161	0.250	-0.096	0.219	-0.302	0.098	0.202	0.176	0.192	0.476
26	0.076	0.189	0.396	0.074	0.198	-0.057	0.082	0.097	0.182	0.064	0.243	-0.004	0.026
27	0.236	0.057	0.307	0.211	0.220	-0.033	0.226	-0.047	0.173	0.148	0.110	-0.092	0.064
28	0.201	-0.030	0.130	0.278	0.038	-0.034	0.303	-0.197	-0.048	0.244	0.070	0.274	0.323
29	0.090	0.095	0.432	0.204	0.165	-0.098	0.153	-0.002	0.173	0.174	0.193	-0.026	0.047
30	-0.072	0.014	0.319	-0.012	-0.041	0.197	0.064	0.113	-0.052	0.017	-0.090	0.088	-0.137
31	0.347	-0.101	0.096	0.147	0.122	-0.128	0.228	-0.235	0.032	0.096	0.093	0.063	0.330
32	0.206	0.124	0.301	0.043	0.225	-0.041	0.199	-0.127	0.154	0.162	0.282	-0.044	0.090
33	0.318	0.134	0.298	0.166	0.224	-0.096	0.223	-0.023	0.349	0.159	0.275	0.039	0.098
34	0.602	0.033	0.043	0.126	0.062	-0.094	0.598	-0.123	0.089	0.155	-0.016	0.151	0.312
35	0.127	0.259	0.283	0.199	0.113	-0.004	0.033	0.104	0.216	0.114	0.225	-0.026	-0.049
36	-0.029	-0.124	-0.162	0.049	-0.016	0.012	0.137	-0.160	0.035	0.090	-0.057	0.297	0.201
37	0.094	-0.172	-0.049	0.204	-0.059	0.088	0.116	-0.248	0.010	0.142	-0.036	0.209	0.441
38	-0.014	0.136	0.091	-0.047	0.038	-0.059	-0.126	0.418	0.142	0.048	0.052	-0.096	-0.303
39	0.173	0.059	0.287	0.054	0.369	-0.070	0.104	-0.006	0.108	0.256	0.215	0.040	0.186
40	0.017	-0.048	-0.063	0.093	-0.034	0.032	0.112	-0.178	-0.043	0.229	-0.039	0.213	0.225
41	0.145	0.159	0.267	0.111	0.306	-0.078	0.148	-0.126	0.062	0.129	0.563	0.076	0.184
42	0.045	0.162	0.120	-0.057	-0.163	0.033	-0.019	0.173	0.107	0.008	-0.060	0.013	-0.135
43	0.205	-0.103	0.144	0.497	0.159	-0.086	0.194	-0.229	0.113	0.251	0.162	0.171	0.375
44	0.170	0.171	0.274	0.056	0.319	-0.125	0.092	-0.171	0.054	0.093	0.509	0.0	0.065
45	0.042	0.119	0.245	0.059	0.417	-0.161	0.040	-0.153	0.044	0.272	0.394	0.144	0.218
46	0.089	-0.013	-0.021	0.128	-0.031	0.088	0.187	-0.277	-0.040	0.128	-0.003	0.284	0.464
47	-0.087	0.177	0.028	-0.061	0.043	-0.016	-0.113	0.177	0.097	0.009	0.036	0.145	-0.092
48	-0.151	-0.067	-0.242	0.008	0.016	-0.092	-0.175	0.050	-0.086	-0.129	-0.148	0.156	-0.151
49	0.214	-0.109	0.202	0.205	0.225	-0.053	0.207	-0.257	0.149	0.216	0.145	0.152	0.513
50	-0.123	-0.032	0.008	-0.014	-0.028	0.155	-0.176	-0.004	-0.040	0.158	0.088	0.274	-0.057

Table 12 - Continued

	X(1) 1	X(2) 2	X(3) 3	X(4) 4	X(5) 5	X(6) 6	X(7) 7	X(8) 8	X(9) 9	X(10) 10	X(11) 11	X(12) 12	X(13) 13
51	0.314	0.170	0.098	0.100	0.166	-0.212	0.305	-0.106	-0.007	0.218	0.050	0.107	0.182
52	0.345	-0.012	0.041	0.262	-0.001	-0.048	0.410	-0.032	0.060	0.188	0.013	0.162	0.295
53	-0.026	0.052	0.063	-0.003	0.042	-0.057	-0.035	0.195	0.174	0.025	0.011	-0.099	-0.221
54	-0.119	0.018	-0.078	0.027	-0.026	-0.010	-0.060	0.005	-0.264	0.023	-0.031	0.259	-0.084
55	0.048	-0.062	-0.077	0.209	0.034	0.084	0.106	-0.127	0.041	0.373	-0.072	0.164	0.263
56	0.073	0.115	0.141	-0.075	0.149	-0.052	-0.004	0.006	0.032	0.192	0.169	-0.074	-0.035
57	0.003	0.104	0.153	0.035	0.090	-0.007	0.067	0.082	0.153	0.038	0.089	-0.074	0.058
58	0.171	0.037	0.180	0.146	0.114	-0.017	0.244	-0.137	0.150	0.152	0.129	0.072	0.295
59	0.188	0.279	0.327	0.032	0.293	-0.159	0.063	-0.024	0.119	0.135	0.497	-0.019	0.049
60	0.032	0.217	0.096	-0.134	0.115	-0.046	-0.040	0.156	0.091	0.027	-0.020	-0.091	-0.157

Table 12 - Continued

	X(14) 14	X(15) 15	X(16) 16	X(17) 17	X(18) 18	X(19) 19	X(20) 20	X(21) 21	X(22) 22	X(23) 23	X(24) 24	X(25) 25	X(26) 26
14	1.000												
15	0.231	1.000											
16	0.126	0.206	1.000										
17	0.186	0.336	0.195	1.000									
18	0.194	0.067	0.143	0.040	1.000								
19	-0.031	0.001	0.306	-0.091	0.329	1.000							
20	0.348	0.166	-0.032	0.193	0.101	-0.088	1.000						
21	0.076	0.319	0.139	0.369	-0.020	-0.010	0.182	1.000					
22	-0.038	0.140	0.310	0.057	0.049	0.411	-0.036	0.156	1.000				
23	0.404	0.277	-0.009	0.419	0.122	-0.221	0.242	0.170	0.010	1.000			
24	0.251	-0.095	0.019	0.034	0.441	0.178	0.146	0.010	0.079	0.157	1.000		
25	-0.145	0.171	0.471	0.035	0.091	0.395	-0.202	0.209	0.444	-0.148	-0.016	1.000	
26	0.155	0.418	0.077	0.479	0.067	-0.167	0.209	0.378	0.019	0.518	-0.062	0.063	1.000
27	-0.024	0.299	0.179	0.364	-0.050	-0.062	-0.002	0.439	0.243	0.234	-0.148	0.190	0.462
28	-0.124	0.064	0.320	-0.001	0.145	0.384	-0.149	0.170	0.383	-0.132	0.054	0.415	0.012
29	0.173	0.374	0.139	0.481	0.040	-0.062	0.134	0.407	0.073	0.403	-0.042	0.115	0.555
30	0.096	0.009	0.141	0.026	0.339	0.335	0.076	0.005	0.162	0.084	0.294	0.108	0.110
31	-0.073	0.189	0.263	0.105	0.0	0.211	-0.055	0.253	0.261	0.013	0.010	0.420	0.107
32	0.180	0.355	0.001	0.463	0.075	-0.194	0.270	0.272	0.023	0.590	-0.036	-0.081	0.525
33	0.077	0.362	0.187	0.390	0.061	-0.019	0.122	0.362	0.166	0.368	0.042	0.101	0.446
34	-0.134	0.169	0.340	0.015	0.010	0.324	-0.211	0.157	0.384	-0.167	-0.073	0.550	-0.008
35	0.290	0.231	-0.034	0.407	0.114	-0.165	0.290	0.089	-0.127	0.565	0.088	-0.258	0.536
36	0.140	-0.145	-0.039	-0.169	0.276	0.242	0.065	-0.096	0.109	0.019	0.408	-0.038	-0.114
37	-0.054	0.021	0.361	-0.047	0.212	0.592	-0.197	-0.031	0.365	-0.244	0.152	0.467	-0.167
38	0.358	0.036	-0.051	0.205	0.112	-0.171	0.248	0.021	-0.124	0.348	0.098	-0.245	0.163
39	0.195	0.313	0.084	0.245	0.077	-0.165	0.093	0.173	0.080	0.317	0.027	0.091	0.357
40	-0.103	0.102	0.126	-0.080	0.040	0.317	-0.213	0.011	0.183	-0.251	0.016	0.215	-0.143
41	0.233	0.286	-0.012	0.319	0.137	-0.260	0.236	0.175	0.047	0.525	0.100	-0.054	0.452
42	0.161	-0.012	0.206	0.045	0.124	0.229	0.198	0.101	0.188	0.056	0.215	0.054	0.004
43	-0.205	0.171	0.395	0.032	0.077	0.423	-0.204	0.190	0.383	-0.099	-0.079	0.611	0.039
44	0.259	0.279	0.068	0.427	0.165	-0.093	0.236	0.254	0.102	0.514	0.121	-0.059	0.480
45	0.176	0.452	0.200	0.338	0.110	-0.002	0.167	0.265	0.177	0.351	0.059	0.196	0.523
46	-0.102	0.180	0.392	0.053	0.236	0.536	-0.129	0.079	0.394	-0.164	0.117	0.513	-0.029
47	0.244	-0.140	-0.186	0.112	0.164	-0.068	0.228	-0.169	-0.093	0.217	0.224	-0.303	0.059
48	0.148	-0.091	-0.040	-0.019	0.188	0.112	0.150	-0.154	-0.005	0.122	0.211	-0.105	0.055
49	-0.233	0.187	0.377	-0.047	0.113	0.386	-0.214	0.120	0.377	-0.180	-0.202	0.653	-0.022
50	0.217	-0.008	-0.185	-0.040	0.263	-0.041	0.156	-0.115	-0.127	0.118	0.157	-0.310	0.072
51	-0.083	0.218	0.286	0.227	0.047	0.069	0.060	0.242	0.178	0.102	-0.010	0.258	0.239
52	-0.207	0.127	0.475	-0.077	0.070	0.258	-0.149	0.175	0.404	-0.113	-0.097	0.528	0.066
53	0.052	0.032	-0.085	0.167	0.020	-0.094	0.109	0.051	-0.117	0.171	-0.006	-0.029	0.190
54	0.126	0.013	0.037	-0.009	0.312	0.131	0.169	-0.101	-0.012	0.010	0.217	-0.101	0.045
55	-0.017	0.250	0.395	0.065	0.096	0.402	-0.049	0.160	0.423	-0.087	0.038	0.555	-0.013
56	0.242	0.118	-0.075	0.244	0.158	-0.108	0.338	0.146	-0.126	0.396	0.136	-0.132	0.303
57	0.118	0.254	0.100	0.305	0.105	0.005	0.142	0.333	0.052	0.259	0.017	0.222	0.400
58	-0.142	0.242	0.490	0.063	-0.014	0.382	-0.144	0.243	0.448	-0.155	-0.045	0.650	0.049
59	0.288	0.304	0.100	0.401	0.076	-0.128	0.374	0.280	0.009	0.440	0.124	-0.061	0.465
60	0.129	0.008	-0.007	0.109	0.062	0.030	0.261	0.0	-0.090	0.078	0.133	-0.006	0.113

Table 12 - Continued

	X(27) 27	X(28) 28	X(29) 29	X(30) 30	X(31) 31	X(32) 32	X(33) 33	X(34) 34	X(35) 35	X(36) 36	X(37) 37	X(38) 38	X(39) 39
27	1.000												
28	0.193	1.000											
29	0.514	0.102	1.000										
30	-0.101	0.106	-0.029	1.000									
31	0.251	0.377	0.104	0.053	1.000								
32	0.353	-0.008	0.510	0.071	0.101	1.000							
33	0.470	0.095	0.446	0.031	0.154	0.514	1.000						
34	0.185	0.400	0.028	0.035	0.325	-0.122	0.182	1.000					
35	0.234	-0.061	0.453	0.106	-0.025	0.556	0.359	-0.186	1.000				
36	-0.241	0.018	-0.220	0.314	-0.019	-0.090	-0.109	-0.060	-0.035	1.000			
37	-0.003	0.416	-0.112	0.235	0.233	-0.275	-0.045	0.471	-0.259	0.278	1.000		
38	0.082	-0.082	0.169	0.051	-0.209	0.208	0.087	-0.232	0.408	0.120	-0.141	1.000	
39	0.183	0.099	0.293	-0.048	0.034	0.346	0.275	0.056	0.233	-0.127	-0.081	0.178	1.000
40	-0.029	0.239	-0.042	0.144	0.178	-0.169	-0.093	0.110	-0.206	0.213	0.337	-0.113	-0.057
41	0.302	0.008	0.410	-0.070	0.057	0.490	0.310	-0.047	0.458	-0.048	-0.179	0.288	0.461
42	0.098	0.009	0.036	0.263	0.002	-0.070	-0.006	-0.076	0.095	0.212	0.136	0.184	-0.080
43	0.190	0.473	0.132	0.039	0.353	-0.060	0.116	0.465	-0.151	-0.009	0.471	-0.180	0.089
44	0.351	0.093	0.513	0.139	0.033	0.569	0.416	-0.066	0.587	-0.034	-0.127	0.413	0.302
45	0.463	0.162	0.493	0.099	0.191	0.434	0.457	0.158	0.426	-0.082	0.111	0.166	0.409
46	0.105	0.439	0.026	0.227	0.266	-0.124	0.020	0.426	-0.165	0.184	0.601	-0.179	-0.080
47	-0.149	-0.142	0.016	0.208	-0.299	0.125	-0.088	-0.393	0.318	0.244	-0.096	0.391	-0.036
48	-0.207	-0.069	-0.062	0.156	-0.181	0.070	-0.068	-0.310	0.188	0.279	-0.049	0.251	0.035
49	0.170	0.426	-0.012	0.051	0.295	-0.099	0.105	0.518	-0.245	-0.071	0.484	-0.239	0.068
50	-0.103	-0.102	-0.008	0.222	-0.306	0.033	-0.110	-0.226	0.243	0.229	-0.062	0.297	0.008
51	0.242	0.259	0.198	0.107	0.280	0.147	0.290	0.152	0.066	-0.082	0.128	0.014	0.214
52	0.216	0.435	0.080	0.166	0.336	-0.049	0.101	0.459	-0.159	-0.095	0.321	-0.196	0.149
53	0.052	-0.046	0.236	-0.003	-0.083	0.140	0.064	-0.142	0.191	-0.120	-0.168	0.244	0.110
54	-0.135	0.080	0.041	0.158	-0.059	-0.001	-0.044	-0.147	0.181	0.133	0.040	0.122	0.075
55	0.165	0.425	0.094	0.068	0.385	0.001	0.113	0.443	-0.124	-0.016	0.501	-0.159	0.085
56	0.078	-0.172	0.281	0.120	-0.175	0.368	0.169	-0.303	0.335	-0.001	-0.143	0.232	0.146
57	0.239	0.219	0.283	0.022	0.051	0.260	0.267	0.029	0.227	-0.018	-0.054	0.197	0.254
58	0.218	0.464	0.097	0.090	0.420	-0.049	0.216	0.529	-0.165	-0.099	0.435	-0.221	0.069
59	0.322	0.035	0.467	0.130	0.015	0.528	0.368	-0.139	0.513	-0.076	-0.181	0.314	0.311
60	0.002	-0.033	0.166	0.101	-0.095	0.053	-0.037	-0.192	0.181	0.078	-0.047	0.288	0.101

Table 12 - Continued

	X(40) 40	X(41) 41	X(42) 42	X(43) 43	X(44) 44	X(45) 45	X(46) 46	X(47) 47	X(48) 48	X(49) 49	X(50) 50	X(51) 51	X(52) 52
40	1.000												
41	-0.071	1.000											
42	0.103	-0.020	1.000										
43	0.221	-0.057	0.000	1.000									
44	-0.147	0.586	0.110	-0.003	1.000								
45	-0.019	0.489	0.123	0.137	0.568	1.000							
46	0.287	-0.134	0.059	0.514	-0.068	0.146	1.000						
47	-0.098	0.075	0.210	-0.322	0.230	0.034	-0.200	1.000					
48	-0.020	0.027	0.244	-0.161	0.120	-0.003	-0.064	0.521	1.000				
49	0.221	-0.117	-0.019	0.615	-0.081	0.106	0.466	-0.334	-0.118	1.000			
50	-0.013	0.069	0.116	-0.270	0.184	0.044	-0.103	0.504	0.406	-0.272	1.000		
51	0.069	0.142	-0.011	0.331	0.148	0.206	0.189	-0.162	-0.121	0.276	-0.229	1.000	
52	0.111	-0.041	-0.005	0.635	-0.046	0.146	0.448	-0.362	-0.192	0.560	-0.273	0.397	1.000
53	-0.140	0.149	-0.053	-0.046	0.226	0.102	-0.081	0.205	0.133	-0.045	0.179	0.001	-0.039
54	0.004	0.075	0.134	-0.076	0.157	0.024	0.072	0.276	0.256	-0.054	0.226	-0.096	-0.074
55	0.203	-0.009	0.115	0.556	0.023	0.128	0.520	-0.290	-0.166	0.547	-0.292	0.258	0.423
56	-0.116	0.265	0.052	-0.180	0.370	0.244	-0.167	0.287	0.159	-0.132	0.186	0.056	-0.159
57	-0.016	0.298	-0.071	0.247	0.337	0.261	0.121	0.016	0.018	0.098	-0.033	0.358	0.154
58	0.186	-0.090	0.038	0.660	-0.010	0.223	0.498	-0.371	-0.276	0.574	-0.392	0.305	0.621
59	-0.071	0.510	0.133	-0.074	0.672	0.519	-0.108	0.183	0.065	-0.111	0.128	0.202	-0.011
60	-0.058	0.075	0.251	-0.055	0.255	0.179	0.015	0.270	0.198	-0.170	0.205	-0.001	-0.125

	X(53) 53	X(54) 54	X(55) 55	X(56) 56	X(57) 57	X(58) 58	X(59) 59	X(60) 60
53	1.000							
54	0.123	1.000						
55	-0.042	0.068	1.000					
56	0.256	0.141	-0.101	1.000				
57	0.218	0.083	0.172	0.210	1.000			
58	-0.084	-0.086	0.597	-0.193	0.183	1.000		
59	0.116	0.121	-0.068	0.385	0.265	0.039	1.000	
60	0.160	0.206	0.042	0.159	0.168	-0.058	0.241	1.000

Table 13. Interitem correlations for the second female self-report sample when standardized with the desirability ratings sample

	X(1) 1	X(2) 2	X(3) 3	X(4) 4	X(5) 5	X(6) 6	X(7) 7	X(8) 8	X(9) 9	X(10) 10	X(11) 11	X(12) 12	X(13) 13
1	1.000												
2	-0.266	1.000											
3	0.157	0.111	1.000										
4	0.566	-0.265	0.030	1.000									
5	-0.012	0.011	0.471	0.043	1.000								
6	-0.020	0.102	-0.060	-0.037	-0.077	1.000							
7	0.675	-0.248	0.115	0.575	-0.028	0.098	1.000						
8	-0.233	0.300	0.068	-0.198	0.192	0.192	-0.178	1.000					
9	0.310	0.012	0.215	0.325	0.217	-0.151	0.251	0.019	1.000				
10	0.231	-0.148	0.006	0.329	0.135	-0.026	0.319	-0.008	0.234	1.000			
11	-0.115	0.079	0.313	-0.090	0.355	-0.062	-0.053	0.150	0.133	0.088	1.000		
12	-0.019	0.083	0.048	0.003	0.142	0.175	-0.015	0.239	0.025	0.030	0.214	1.000	
13	0.552	-0.302	-0.015	0.515	-0.054	0.020	0.593	-0.233	0.200	0.274	-0.070	0.079	1.000
14	-0.212	0.175	0.118	-0.099	0.209	0.113	-0.161	0.348	0.096	-0.033	0.219	0.368	-0.210
15	0.139	-0.142	0.320	0.200	0.531	-0.059	0.217	0.034	0.122	0.231	0.290	0.068	0.078
16	0.326	-0.119	0.032	0.291	0.171	0.048	0.365	-0.080	0.110	0.259	0.130	0.162	0.414
17	-0.012	0.115	0.467	0.035	0.415	-0.185	0.030	0.048	0.301	0.054	0.370	0.005	-0.021
18	-0.066	0.104	-0.030	0.041	0.083	0.251	0.099	0.259	0.067	0.079	0.129	0.309	0.068
19	0.383	-0.031	-0.139	0.373	-0.119	0.182	0.410	0.011	0.093	0.240	-0.133	0.098	0.496
20	-0.204	0.160	0.232	-0.162	0.272	0.053	-0.252	0.186	0.0	0.017	0.321	0.202	-0.252
21	0.116	-0.070	0.330	0.243	0.287	-0.089	0.088	-0.063	0.288	0.051	0.238	0.024	0.135
22	0.413	-0.129	0.026	0.474	0.062	0.139	0.415	-0.080	0.277	0.258	0.013	0.192	0.495
23	-0.195	0.182	0.370	-0.116	0.412	0.045	-0.190	0.212	0.249	-0.123	0.368	0.190	-0.112
24	-0.142	0.134	0.008	-0.061	-0.064	0.384	-0.011	0.207	0.024	0.024	0.066	0.112	-0.002
25	0.557	-0.276	0.092	0.496	0.053	0.043	0.588	-0.242	0.282	0.353	-0.019	0.080	0.586
26	-0.032	0.124	0.454	0.041	0.497	-0.040	-0.007	0.086	0.254	0.112	0.401	0.124	-0.038
27	0.171	0.025	0.389	0.168	0.387	-0.128	0.169	-0.053	0.280	0.093	0.352	0.032	0.174
28	0.321	-0.109	0.044	0.324	-0.005	-0.017	0.431	-0.109	0.194	0.356	-0.016	0.071	0.446
29	0.071	0.069	0.406	0.176	0.474	-0.137	0.085	0.070	0.243	0.112	0.400	0.127	0.040
30	0.048	0.158	-0.001	0.124	-0.044	0.352	0.147	0.125	0.046	0.031	0.034	0.096	0.130
31	0.359	-0.162	0.166	0.314	0.130	-0.045	0.312	-0.203	0.304	0.211	-0.001	-0.068	0.267
32	-0.090	0.110	0.363	-0.045	0.427	-0.067	-0.036	0.055	0.244	0.050	0.531	0.182	-0.107
33	0.102	-0.034	0.366	0.130	0.329	-0.018	0.160	-0.006	0.285	0.094	0.296	0.115	0.143
34	0.607	-0.250	0.103	0.399	-0.066	0.017	0.635	-0.198	0.249	0.259	-0.066	0.051	0.533
35	-0.195	0.296	0.347	-0.116	0.409	0.015	-0.162	0.272	0.151	0.074	0.410	0.179	-0.170
36	-0.093	0.089	-0.137	0.002	-0.137	0.277	-0.052	0.183	-0.173	-0.007	-0.150	0.087	0.067
37	0.418	-0.054	-0.108	0.304	-0.102	0.113	0.487	-0.119	0.046	0.295	-0.285	0.022	0.487
38	-0.230	0.302	0.152	-0.176	0.180	0.020	-0.243	0.370	-0.003	-0.129	0.224	0.278	-0.219
39	-0.020	0.008	0.222	0.016	0.284	-0.066	-0.009	0.070	0.231	0.163	0.165	0.112	-0.023
40	0.192	-0.082	-0.010	0.266	-0.042	0.037	0.212	0.036	-0.045	0.174	-0.124	-0.038	0.212
41	-0.122	0.101	0.306	-0.068	0.411	-0.027	-0.094	0.127	0.196	0.104	0.382	0.104	-0.095
42	-0.038	0.241	0.016	0.041	-0.018	0.209	0.001	0.202	-0.050	-0.037	0.090	0.153	0.078
43	0.489	-0.294	0.089	0.542	0.071	-0.066	0.500	-0.250	0.241	0.338	-0.058	0.049	0.595
44	-0.088	0.246	0.347	-0.020	0.438	0.010	-0.036	0.224	0.160	0.016	0.465	0.241	-0.086
45	0.062	0.068	0.155	0.084	0.444	-0.012	0.115	0.046	0.150	0.216	0.372	0.171	0.150
46	0.447	-0.138	0.028	0.387	0.022	0.137	0.519	-0.073	0.112	0.315	-0.046	0.058	0.516
47	-0.411	0.326	-0.074	-0.251	0.094	0.138	-0.370	0.360	-0.094	-0.118	0.027	0.117	-0.280
48	-0.201	0.294	-0.068	-0.077	0.021	0.180	-0.131	0.220	-0.095	-0.132	-0.026	0.110	-0.156
49	0.534	-0.229	0.022	0.476	0.031	-0.051	0.579	-0.221	0.216	0.269	-0.101	0.143	0.527
50	-0.330	0.293	-0.038	-0.230	0.009	0.148	-0.248	0.309	-0.158	-0.079	0.042	0.168	-0.279

Table 13 - Continued

	X(1) 1	X(2) 2	X(3) 3	X(4) 4	X(5) 5	X(6) 6	X(7) 7	X(8) 8	X(9) 9	X(10) 10	X(11) 11	X(12) 12	X(13) 13
51	0.161	-0.063	0.203	0.241	0.199	-0.117	0.120	-0.030	0.197	0.215	0.145	0.064	0.140
52	0.417	-0.279	-0.002	0.486	0.028	0.004	0.499	-0.280	0.250	0.359	0.017	0.067	0.501
53	-0.063	0.129	0.095	-0.034	0.074	-0.148	-0.101	0.033	0.073	-0.032	0.099	0.037	-0.092
54	-0.040	0.173	-0.101	0.021	0.001	0.221	-0.009	0.199	-0.038	0.082	0.066	0.205	-0.040
55	0.515	-0.124	0.055	0.452	0.089	0.004	0.513	-0.155	0.292	0.404	-0.005	0.082	0.443
56	-0.193	0.186	0.210	-0.111	0.235	0.048	-0.216	0.113	-0.002	-0.058	0.324	0.153	-0.226
57	-0.002	0.032	0.287	0.091	0.326	-0.138	0.003	0.065	0.254	0.164	0.295	0.118	0.050
58	0.548	-0.305	0.073	0.515	0.060	-0.046	0.557	-0.251	0.252	0.369	0.033	0.028	0.595
59	-0.115	0.179	0.312	-0.061	0.418	0.018	-0.107	0.147	0.102	0.012	0.452	0.143	-0.123
60	-0.125	0.294	0.138	-0.110	0.136	-0.027	-0.146	0.207	-0.120	-0.060	0.087	0.082	-0.108

Table 13 - Continued

	X(14) 14	X(15) 15	X(16) 16	X(17) 17	X(18) 18	X(19) 19	X(20) 20	X(21) 21	X(22) 22	X(23) 23	X(24) 24	X(25) 25	X(26) 26
14	1.000												
15	0.140	1.000											
16	0.172	0.267	1.000										
17	0.029	0.111	0.059	1.000									
18	0.101	-0.076	0.275	-0.049	1.000								
19	0.035	-0.094	0.377	-0.136	0.440	1.000							
20	0.106	0.196	0.095	0.093	-0.032	-0.132	1.000						
21	-0.002	0.077	0.079	0.419	-0.131	-0.044	0.140	1.000					
22	0.148	-0.067	0.233	0.050	0.142	0.244	-0.039	0.142	1.000				
23	0.193	0.163	-0.003	0.294	-0.077	-0.140	0.094	0.233	0.076	1.000			
24	0.325	-0.125	-0.087	-0.169	0.178	0.106	-0.121	-0.243	0.025	0.057	1.000		
25	0.146	0.255	0.435	0.111	0.179	0.207	0.054	0.150	0.114	0.143	0.035	1.000	
26	0.043	0.229	0.037	0.258	-0.130	-0.171	0.213	0.299	0.052	0.476	-0.098	0.198	1.000
27	-0.042	0.194	0.070	0.460	-0.197	-0.136	0.080	0.409	0.108	0.190	-0.214	0.118	0.286
28	0.050	0.115	0.347	0.081	0.270	0.298	-0.060	0.022	0.201	0.002	0.057	0.352	0.074
29	0.076	0.206	0.086	0.350	0.008	-0.108	0.120	0.316	0.049	0.366	-0.096	0.158	0.429
30	0.055	-0.081	-0.004	0.025	0.159	0.117	0.141	-0.074	-0.036	-0.047	0.236	-0.076	-0.118
31	-0.025	0.208	0.367	0.064	-0.015	0.187	-0.030	0.189	0.113	0.020	-0.116	0.330	0.086
32	0.115	0.170	0.064	0.326	-0.075	-0.054	0.070	0.288	0.096	0.461	-0.071	0.099	0.370
33	0.001	0.188	0.176	0.406	-0.044	-0.043	0.212	0.430	0.143	0.358	-0.130	0.182	0.403
34	0.003	0.060	0.375	0.124	0.135	0.155	0.124	0.182	0.225	0.038	-0.049	0.294	0.119
35	0.162	0.105	0.024	0.304	-0.031	-0.213	0.210	0.152	0.126	0.414	0.007	0.078	0.353
36	0.199	-0.009	0.209	-0.183	0.288	0.339	-0.022	-0.068	0.120	-0.139	0.160	0.087	-0.134
37	0.072	-0.091	0.417	-0.078	0.305	0.508	-0.105	-0.046	0.199	-0.192	0.141	0.298	-0.176
38	-0.036	0.014	-0.194	0.105	-0.232	-0.294	0.259	0.139	-0.005	0.064	-0.107	-0.301	0.173
39	0.163	0.407	0.259	0.178	0.029	-0.084	0.287	0.381	-0.049	0.193	0.013	0.254	0.335
40	-0.034	-0.049	0.154	-0.122	0.116	0.252	-0.474	-0.007	0.035	-0.064	0.096	0.020	-0.163
41	0.257	0.356	0.248	0.316	-0.058	-0.028	0.313	0.242	0.092	0.384	-0.108	0.207	0.332
42	0.071	-0.164	-0.079	0.098	-0.073	-0.025	0.398	0.195	0.122	-0.022	0.029	-0.163	0.031
43	-0.009	0.191	0.377	0.137	0.145	0.199	-0.040	0.141	0.173	0.073	-0.141	0.363	0.112
44	0.219	0.296	0.133	0.272	-0.100	-0.051	0.258	0.268	0.008	0.405	-0.016	0.149	0.372
45	0.205	0.410	0.254	0.165	-0.015	-0.038	0.271	0.088	-0.053	0.227	-0.033	0.338	0.324
46	0.163	-0.029	0.409	-0.075	0.322	0.590	-0.108	-0.048	0.219	-0.140	0.158	0.347	-0.152
47	0.233	-0.053	-0.134	0.042	0.022	0.012	-0.009	-0.065	-0.023	0.134	0.188	-0.024	0.035
48	-0.059	-0.081	-0.094	-0.153	0.103	-0.012	-0.095	-0.228	-0.111	-0.091	0.131	-0.198	-0.121
49	0.107	0.252	0.479	0.069	0.216	0.299	-0.045	0.109	0.191	0.115	0.008	0.816	0.135
50	0.197	-0.050	-0.003	-0.051	0.222	0.129	-0.138	-0.132	0.010	0.095	0.307	-0.053	-0.104
51	0.057	0.218	0.183	0.158	0.071	0.042	0.033	0.130	0.317	0.070	0.009	0.224	0.152
52	-0.005	0.061	0.408	0.127	0.281	0.215	-0.079	0.071	0.344	0.049	-0.134	0.166	0.051
53	-0.107	0.123	-0.110	0.104	-0.107	-0.215	0.150	0.082	-0.027	0.097	-0.107	-0.153	0.091
54	0.026	-0.056	0.911	-0.085	0.202	0.023	-0.092	-0.185	-0.125	-0.078	0.141	-0.068	-0.108
55	0.115	0.037	0.283	-0.038	0.068	0.222	-0.107	0.007	0.115	-0.062	0.166	0.200	-0.069
56	0.110	0.125	-0.073	0.191	-0.151	-0.240	0.082	0.112	-0.061	0.121	0.041	0.019	0.131
57	-0.019	0.127	-0.047	0.189	-0.032	-0.067	0.188	0.217	0.108	0.216	0.014	0.208	0.231
58	0.097	0.224	0.368	0.138	0.054	0.055	0.221	0.186	0.182	0.233	-0.035	0.391	0.230
59	0.225	0.291	0.143	0.353	-0.091	-0.150	0.422	0.263	0.055	0.399	-0.036	0.078	0.340
60	0.007	0.106	-0.129	0.108	-0.126	-0.119	0.309	0.129	-0.027	0.065	0.025	0.078	0.073

Table 13 - Continued

	X(27) 27	X(28) 28	X(29) 29	X(30) 30	X(31) 31	X(32) 32	X(33) 33	X(34) 34	X(35) 35	X(36) 36	X(37) 37	X(38) 38	X(39) 39
27	1.000												
28	0.021	1.000											
29	0.266	0.116	1.000										
30	-0.101	0.063	-0.041	1.000									
31	0.092	0.307	0.050	-0.193	1.000								
32	0.227	-0.027	0.430	-0.165	0.162	1.000							
33	0.436	0.066	0.386	-0.050	0.147	0.415	1.000						
34	0.151	0.345	0.088	0.016	0.365	0.142	0.284	1.000					
35	0.158	-0.008	0.396	-0.082	-0.075	0.335	0.321	0.117	1.000				
36	-0.164	0.179	-0.038	0.210	0.016	-0.027	-0.139	0.087	-0.157	1.000			
37	-0.107	0.296	0.001	0.055	0.236	-0.124	-0.051	0.179	-0.127	0.349	1.000		
38	0.104	-0.192	0.078	0.074	-0.094	0.052	0.055	-0.049	0.152	-0.157	-0.377	1.000	
39	0.160	-0.037	0.291	0.036	0.040	0.244	0.274	0.154	0.222	-0.049	0.015	0.143	1.000
40	-0.029	0.250	-0.042	0.013	0.115	0.019	-0.128	0.069	-0.105	0.232	0.270	-0.200	-0.108
41	0.170	0.050	0.422	-0.072	0.117	0.407	0.392	0.224	0.332	-0.048	-0.039	0.033	0.305
42	0.149	-0.061	0.025	0.076	-0.015	0.0	0.081	0.090	0.061	0.042	-0.091	0.302	-0.019
43	0.177	0.365	0.212	0.025	0.237	0.183	0.231	0.337	0.133	0.077	0.181	-0.152	0.123
44	0.129	-0.025	0.304	-0.076	0.109	0.501	0.377	0.164	0.359	-0.164	-0.171	0.143	0.311
45	0.121	0.109	0.253	-0.030	0.127	0.309	0.312	0.162	0.212	-0.040	-0.093	0.014	0.452
46	-0.110	0.378	-0.123	0.117	0.234	-0.007	-0.053	0.269	-0.113	0.333	0.540	-0.418	-0.013
47	-0.039	-0.080	-0.010	0.041	-0.206	-0.001	0.024	-0.080	0.175	0.106	0.051	0.049	0.040
48	-0.130	-0.168	-0.172	-0.019	-0.170	-0.148	-0.176	-0.176	-0.141	0.156	0.032	0.069	-0.104
49	0.044	0.325	0.086	-0.094	0.303	0.077	0.102	0.276	0.047	0.153	0.347	-0.339	0.225
50	-0.113	0.024	-0.042	0.059	-0.175	0.003	-0.051	-0.166	0.024	0.158	0.082	0.037	-0.015
51	0.148	0.295	0.152	-0.110	0.202	0.138	0.252	0.382	0.113	0.002	0.071	-0.018	0.153
52	0.019	0.289	0.204	0.051	0.244	0.117	0.176	0.380	0.136	0.127	0.350	-0.138	0.113
53	0.145	-0.103	0.166	0.057	-0.133	-0.056	0.086	-0.023	0.086	-0.192	-0.204	0.216	0.081
54	-0.157	0.121	-0.111	0.151	-0.142	-0.135	-0.145	-0.063	-0.178	0.183	0.068	-0.080	-0.075
55	-0.101	0.177	-0.125	0.115	0.011	-0.009	0.005	0.117	-0.022	0.231	0.305	-0.193	0.050
56	0.117	0.004	0.109	-0.086	0.050	0.122	0.090	0.080	0.148	-0.153	-0.137	0.109	0.168
57	0.097	0.108	0.288	0.152	0.008	0.199	0.282	0.134	0.299	0.049	-0.019	0.068	0.121
58	0.097	0.243	0.250	0.073	0.135	0.136	0.240	0.330	0.250	0.014	0.098	-0.087	0.282
59	0.206	-0.001	0.348	-0.043	0.055	0.396	0.338	0.123	0.355	-0.137	-0.192	0.249	0.279
60	-0.007	-0.113	0.107	0.154	-0.034	-0.034	0.092	0.103	0.117	0.010	-0.122	0.120	0.025

Table 13 - Continued

	X(40) 40	X(41) 41	X(42) 42	X(43) 43	X(44) 44	X(45) 45	X(46) 46	X(47) 47	X(48) 48	X(49) 49	X(50) 50	X(51) 51	X(52) 52
40	1.000												
41	-0.051	1.000											
42	-0.041	0.043	1.000										
43	0.149	0.229	0.013	1.000									
44	-0.072	0.590	0.087	0.146	1.000								
45	-0.139	0.471	-0.031	0.257	0.360	1.000							
46	0.258	0.009	-0.013	0.285	-0.013	0.100	1.000						
47	-0.002	0.008	0.003	-0.183	-0.002	0.090	-0.033	1.000					
48	0.105	-0.221	0.078	-0.058	-0.148	-0.133	-0.010	0.197	1.000				
49	0.119	0.129	-0.136	0.443	0.118	0.257	0.392	-0.043	-0.172	1.000			
50	0.246	-0.047	0.371	-0.050	0.084	-0.007	0.049	0.301	0.215	0.021	1.000		
51	0.052	0.124	-0.035	0.113	0.126	0.213	0.080	0.023	-0.078	0.183	-0.028	1.000	
52	0.168	0.115	-0.039	0.210	0.030	-0.039	0.269	-0.043	-0.034	0.185	-0.072	0.345	1.000
53	-0.105	0.022	0.108	-0.117	0.035	-0.024	-0.317	0.116	0.115	-0.141	0.019	0.073	0.073
54	0.095	-0.128	0.316	-0.059	-0.130	-0.012	0.078	0.047	0.375	-0.089	0.247	0.117	0.039
55	0.216	-0.022	-0.086	0.205	-0.026	0.088	0.291	0.077	0.054	0.272	0.037	0.100	0.123
56	-0.101	0.153	0.068	-0.077	0.222	0.115	-0.178	0.045	-0.080	-0.045	-0.057	0.121	-0.075
57	-0.065	0.220	-0.079	0.125	0.199	0.141	0.029	-0.014	-0.208	0.147	-0.026	0.207	0.061
58	0.041	0.366	-0.033	0.299	0.229	0.301	0.210	-0.226	-0.270	0.386	-0.131	0.166	0.146
59	-0.179	0.631	0.172	0.046	0.613	0.357	-0.114	0.083	-0.222	0.024	-0.004	0.228	0.018
60	-0.197	0.163	0.165	-0.069	0.105	0.196	-0.098	0.050	-0.046	0.029	-0.149	0.063	-0.065

	X(53) 53	X(54) 54	X(55) 55	X(56) 56	X(57) 57	X(58) 58	X(59) 59	X(60) 60
53	1.000							
54	0.114	1.000						
55	-0.078	0.090	1.000					
56	0.196	-0.140	-0.117	1.000				
57	0.091	-0.063	0.021	0.080	1.000			
58	-0.044	-0.116	0.195	0.079	0.346	1.000		
59	0.117	-0.003	-0.148	0.208	0.292	0.254	1.000	
60	0.133	-0.093	0.072	0.099	0.244	0.185	0.204	1.000

APPENDIX C
PRIMARY FACTOR MATRICES BY GROUP

Table 14. Female rotated primary factor matrix when not constrained by male factor matrix

Item	Factor									
	1	2	3	4	5	6	7	8	9	10
sympathetic	63	-01	13	-15	-11	-08	-09	02	08	18
sensitive to others' needs	60	-05	-06	02	02	-04	-06	03	09	07
understanding	60	-11	06	-03	-03	-04	-10	04	09	-07
warm	57	10	-11	09	13	14	05	-08	-12	-08
compassionate	54	06	-06	-04	10	09	07	-02	02	04
eager to soothe hurt feelings	50	-04	-02	02	-07	-08	13	-01	04	05
gentle	49	06	09	-08	03	15	23	-15	03	-10
helpful	46	17	00	09	-02	-08	02	-12	06	01
tender	46	05	00	02	15	15	26	-02	00	-13
sincere	41	11	13	-07	13	-02	04	-20	-02	05
willing to take a stand	13	69	12	-07	22	-07	-12	19	08	-07
dominant	-09	64	-01	15	-09	-13	-04	-01	02	00
defends belief	13	62	20	-14	11	02	-11	03	-10	-05
forceful	-01	54	-07	20	-12	17	-10	08	15	03
aggressive	-12	52	10	16	-22	-10	17	-14	03	-05
acts as leader	-03	51	09	16	17	-13	07	-01	38	-05
has leadership abilities	07	49	06	15	13	-18	09	03	38	-08
assertive	00	47	20	30	05	-06	-04	-07	01	-04
has strong personality	13	47	08	10	12	-13	22	-11	-09	-29
independent	-12	05	79	-04	03	02	-08	-05	03	00
self-sufficient	-01	09	76	-03	04	03	00	-06	08	00
self-reliant	-12	07	73	02	-11	03	07	20	06	17
individualist	-05	08	53	00	09	01	04	19	-19	-02
competitive	-16	24	-08	65	12	01	04	01	08	02
athletic	00	01	00	57	07	-04	-02	04	-07	-03

moody	08	08	02	-06	-57	12	02	16	-18	07
happy	10	10	12	07	56	01	06	-05	01	-07
cheerful	25	02	09	12	43	-04	-09	02	-02	-11
secretive	04	-13	09	22	-25	62	-03	08	-02	-14
solemn	-04	01	-02	-01	03	52	02	04	10	-05
soft-spoken	06	-08	04	-17	24	52	-05	04	-13	28
shy	-08	-14	27	-18	-02	46	04	03	-11	27
gullible	-02	-09	01	-31	-09	00	52	00	03	03
yielding	08	-26	03	05	-01	08	40	-11	05	04
unpredictable	11	03	05	09	-17	17	-02	57	02	-06
unsystematic	-09	02	-15	-31	21	-09	11	47	-18	18
affectionate	38	-02	-09	14	07	-16	39	-02	-07	13
theatrical	05	35	06	23	-01	-04	14	24	05	05
adaptable	07	-32	36	23	05	-15	07	18	18	-07
reliable	37	-04	15	16	08	00	-16	-17	01	31
likeable	37	06	10	09	18	07	02	-02	-22	-07
friendly	36	-04	14	19	15	-15	10	05	08	-08
tactful	34	05	13	-04	-06	12	00	-03	24	11
ambitious	13	32	18	10	-04	-15	04	-03	13	15
no harsh lang.	-05	00	-09	-02	35	08	05	-01	09	33
decisions easy	-09	08	25	01	15	07	-23	01	44	-26
conscientious	09	00	10	10	-06	-04	01	00	-05	48
take risks	08	16	-04	05	02	-14	-05	23	31	-06
loyal	24	02	24	-09	-02	-09	05	-22	01	04
inefficient	-21	-07	-14	-15	06	02	24	29	-01	07
flatterable	01	08	11	05	10	-02	25	05	-05	00
feminine	14	05	03	-01	16	07	07	01	02	05
analytical	06	17	25	26	-17	10	-14	-13	03	04
jealous	14	14	-14	00	-27	16	21	03	00	-08
truthful	24	-06	26	-03	09	-08	06	-27	02	15
conceited	-17	22	-02	06	-16	06	25	14	10	01
masculine	-06	01	-01	14	-08	08	-03	07	-14	-01
childlike	-06	03	-13	03	-03	06	18	12	-11	05
loves children	25	03	-04	-11	13	03	05	01	29	02
conventional	05	-03	-16	18	13	18	18	-19	25	07
Sum squares	4.07	3.54	2.87	1.79	1.78	1.67	1.37	1.31	1.18	1.10

Note: Loadings carried to two decimal places with decimal points deleted.

Table 15. Male rotated primary factor matrix when constrained by the female factor matrix

Item	Factor									
	1	2	3	4	5	6	7	8	9	10
sympathetic	41	-02	-04	-14	00	10	10	-01	00	11
sensitive to others' needs	52	05	01	02	07	-07	00	00	08	02
understanding	44	00	13	-02	09	00	-01	00	06	04
warm	50	-09	06	00	21	02	09	-06	00	-02
compassionate	57	07	-13	-04	03	-05	18	00	03	-07
eager to soothe hurt feelings	47	15	-12	-09	01	00	13	03	07	02
gentle	51	-10	07	02	07	12	11	-03	02	-01
helpful	29	10	01	04	14	-09	08	-06	01	00
tender	46	11	01	00	06	08	14	-01	07	-02
sincere	38	08	18	-02	06	03	06	-10	04	07
willing to take a stand	16	39	25	03	-08	-10	-01	02	12	-03
dominant	-18	53	02	21	02	-05	12	-02	14	-02
defends belief	18	29	11	-04	-04	-12	-05	-11	09	02
forceful	-06	39	11	04	-05	-06	04	07	11	-02
aggressive	-16	55	05	16	-10	-14	08	-04	13	-06
acts as leader	04	51	04	25	15	-16	04	00	19	-04
has leadership abilities	16	44	08	33	05	-14	-01	01	21	-06
assertive	05	42	23	11	04	-10	-02	-05	13	-04
has strong personality	06	38	14	11	10	-13	04	05	09	-09
independent	08	17	48	13	03	07	-09	07	06	04
self-sufficient	09	18	43	10	01	03	-04	07	05	-02
self-reliant	08	14	03	32	-02	-01	-07	-08	02	00
individualist	-02	09	50	02	06	10	-02	18	01	01
competitive	-06	18	01	29	-03	02	03	00	12	02
athletic	-05	-03	-05	31	10	-02	03	09	09	00
moody	-02	05	01	03	-28	14	12	16	-04	02

happy	08	07	09	11	41	-13	07	-11	-01	-05
cheerful	27	10	02	10	38	-13	14	-03	-01	-11
secretive	-09	09	10	08	-19	22	08	08	00	10
solemn	07	06	03	05	-08	22	07	-01	04	18
soft-spoken	12	-39	15	-12	14	28	00	03	-10	23
shy	-01	-40	-03	-07	-09	39	08	05	-12	26
gullible	05	02	-16	-06	-07	03	12	12	-03	03
yielding	19	-09	-13	-11	-03	-08	11	11	-02	10
unpredictable	-02	-05	06	-02	-17	15	13	33	-06	-02
unsystematic	02	-03	-12	-05	01	09	21	27	-06	-01
affectionate	47	11	-05	11	01	-02	21	-01	03	-13
theatrical	26	18	02	-01	-06	-03	08	11	03	-10
adaptable	06	04	34	05	12	08	-01	04	02	04
reliable	23	08	23	15	-02	11	-07	-33	04	17
likeable	29	-04	19	18	29	-06	05	05	00	-07
friendly	36	-01	06	06	34	-12	09	-03	-01	-06
tactful	17	09	15	05	09	05	01	-06	08	02
ambitious	03	18	36	25	03	-03	-13	-11	11	-03
no harsh lang.	09	-03	14	-04	11	11	02	-07	-03	11
decisions easy	07	19	26	10	03	-08	-07	-06	08	-05
conscientious	13	10	09	04	02	19	03	-10	08	20
take risks	12	19	25	08	-11	-14	01	22	04	-17
loyal	26	05	22	-02	00	03	-09	-22	02	15
inefficient	-14	-04	-08	-18	01	05	14	14	-11	04
flatterable	15	05	-16	13	-04	14	24	10	-02	-03
feminine	-01	-03	01	-04	04	02	02	08	-02	-02
analytical	10	10	32	-07	-08	07	-03	-05	-02	04
jealous	07	13	-15	06	-26	11	21	09	-15	-02
truthful	31	00	19	-05	=17	01	-05	-09	03	12
conceited	-31	26	12	09	-05	10	17	18	-02	-04
masculine	05	05	01	09	04	01	02	-05	04	02
childlike	-08	06	00	-06	06	16	17	22	-03	06
loves children	27	08	-18	06	15	-02	09	-05	12	02
conventional	11	-07	-07	14	08	20	12	-18	-01	16
Sum squares	3.48	2.60	1.95	.84	1.05	.85	.60	.78	.33	.46

Note: Loadings carried to three decimal places with decimal points deleted.

Table 16. Male rotated primary factor loadings when not constrained by female factor matrix

Item	Factor 1	2	3	4	5	6	7	8	9	10
gentle	80	05	-22	14	01	-01	01	-08	03	06
tender	71	01	03	04	-12	14	-15	-06	11	06
affectionate	68	23	-01	02	11	-04	09	-04	-17	27
compassionate	68	16	-04	-09	15	08	-06	18	-14	09
loves children	60	-02	11	-13	-10	03	21	09	08	-21
warm	56	31	-19	07	01	08	-06	-03	03	-03
eager to soothe hurt feelings	50	-04	08	-10	01	26	-17	25	07	02
tactful	46	-06	10	19	-07	-04	-01	-13	11	-13
sincere	40	08	02	19	29	02	-03	11	09	-01
dominant	-02	08	66	01	-10	-03	09	-07	13	10
aggressive	-04	-01	65	07	20	-12	13	07	-07	09
acts as leader	-13	26	49	-01	-10	44	14	-02	10	-02
forceful	03	-11	44	17	-06	07	-04	11	02	-04
assertive	07	07	41	22	07	15	-04	-07	03	-06
cheerful	08	79	07	-03	-12	10	-08	-05	-03	04
happy	-06	76	14	02	-01	-10	03	-06	02	-10
friendly	16	69	07	06	07	06	06	10	-07	-06
likeable	04	62	-19	24	-01	20	22	-02	-07	04
individualist	05	02	05	68	-17	-01	-03	01	05	-08
independent	-15	01	11	55	-03	14	07	-11	13	-04
self-sufficient	04	04	12	54	02	02	05	-07	00	01
takes risks	08	03	04	44	10	11	17	14	-40	09
adaptable	09	14	02	43	-04	-04	04	00	10	-08
reliable	02	11	-03	05	57	10	05	-20	32	15
loyal	-06	11	-05	08	52	16	-11	05	20	-02
childlike	-07	06	14	12	-40	01	13	23	21	07
has leadership abilities	-09	14	27	02	01	64	29	-11	04	09

sensitive to others' needs	27	11	-15	00	20	46	07	21	-01	-07
athletic	-05	11	-07	08	-04	06	72	05	-04	-02
competitive	02	-06	16	08	06	06	49	-04	06	08
yielding	11	-05	-08	-03	06	04	04	44	07	-01
conscientious	18	-14	11	06	06	12	00	03	42	-03
jealous	-01	-02	07	-14	09	02	-05	07	00	56
flatterable	22	14	01	-12	-17	05	06	02	08	41
shy	-02	19	-38	04	00	-18	10	18	39	15
soft-spoken	02	05	-38	21	-04	-06	00	22	35	-15
conventional	17	17	-04	-14	15	-14	17	-10	36	19
solemn	07	-18	05	03	04	09	06	09	35	12
secretive	-13	-19	06	15	-02	06	03	01	23	31
moody	-07	-19	-01	12	09	-01	07	17	-02	38
understanding	32	08	-14	14	12	30	00	14	05	-12
sympathetic	36	-02	-07	-04	18	14	-19	27	17	-01
has strong personality	-04	24	35	14	-09	25	-07	-02	-04	02
conceited	-17	08	39	23	-30	-22	-05	-01	58	27
takes stand	17	-08	34	31	23	12	-02	14	-09	-05
helpful	11	39	06	-01	26	04	07	19	-03	00
ambitious	02	04	06	32	12	20	19	-38	03	01
self-reliant	02	07	08	30	23	02	-10	-13	00	02
defends beliefs	12	-05	27	06	34	11	-11	13	-02	-13
inefficient	-13	11	12	02	06	-35	-13	38	-01	00
unsystematic	03	11	01	05	-28	-08	03	36	-02	14
gullible	-03	-02	05	-09	01	01	01	32	00	09
theatrical	16	04	03	01	-14	38	-27	-04	-07	20
unpredictable	-02	-16	-12	27	-24	05	04	22	-07	25
feminine	00	02	-03	03	-21	07	-11	-02	02	-02
analytical	05	-01	-05	30	20	00	-26	-05	08	08
truthful	08	18	-06	15	21	21	-06	18	18	-22
decisions easy	12	05	14	27	15	03	06	-15	-07	-06
masculine	09	06	05	01	06	00	12	-03	05	01
no harsh lang.	00	18	-01	09	04	-02	-16	01	25	-02
Sum squares	4.04	2.70	3.00	2.55	1.91	1.80	1.51	1.51	1.44	1.39

Note: Loadings carried to two decimal places with decimal points deleted.

Table 17. Desirability ratings rotated primary factor matrix when not constrained by the self-report matrix

Item	Factor 1	2	3	4	5	6	7	8	9	10
self-reliant	79	-06	-12	-14	-03	-04	13	-04	07	01
independent	78	07	-14	03	-01	-07	01	-12	11	00
assertive	71	06	09	07	-08	-10	-07	00	-05	01
self-sufficient	65	10	-06	-05	-22	01	04	-09	03	-14
defends beliefs	62	-10	12	02	07	-05	11	-07	06	10
acts as leader	60	-06	23	-09	06	-01	-11	-10	07	00
has leadership abilities	56	-07	28	-02	-03	00	00	01	11	00
ambitious	52	01	37	-07	-20	01	-08	04	07	03
analytical	49	10	06	13	-12	04	04	08	-07	-03
competitive	48	-11	21	-03	-06	14	09	07	17	-12
takes stand	48	-04	41	-04	03	-08	-03	-02	08	-04
forceful	48	-20	02	32	08	-04	-02	14	13	01
individualist	44	07	57	01	-07	-04	-22	-11	-15	06
aggressive	42	-08	12	20	02	-08	-05	04	28	-04
has strong personality	42	02	28	01	-18	26	-17	15	08	-12
friendly	12	76	01	-01	-05	-01	-14	09	18	-05
warm	-16	71	06	02	-01	13	09	-12	00	-26
tender	03	70	02	03	16	06	03	16	-05	-03
gentle	-16	62	13	04	00	08	-06	16	03	11
compassionate	-05	58	00	10	08	03	17	-18	-03	21
eager to soothe hurt feelings	-04	57	-13	05	25	09	13	04	-02	08
truthful	21	56	05	-21	-20	-17	17	22	03	13
sensitive to others' needs	-03	56	10	01	17	-05	19	-06	16	24
sincere	14	53	04	07	-12	-02	19	-08	00	20
understanding	14	48	01	-16	11	-01	16	09	15	18
sympathetic	-08	44	-03	15	07	27	31	-11	-11	13
likeable	-05	41	21	-08	05	19	04	-17	04	-21

adaptable	-06	09	58	05	-09	-05	09	01	05	05
tactful	-12	07	52	-03	24	04	24	00	16	-02
jealous	-13	01	05	57	-08	10	13	04	-03	-09
secretive	12	04	07	55	12	-08	-02	08	-02	18
unpredictable	06	04	09	49	17	16	-02	-10	07	-03
conceited	-08	-08	-01	47	01	-02	00	06	05	-10
moody	06	06	-12	40	-07	07	-12	-01	-04	05
gullible	-14	03	-12	18	44	05	02	21	-07	00
no harsh lang.	04	03	09	-16	44	-01	09	02	-05	05
inefficient	01	-03	-08	21	42	04	-04	14	-05	03
flatterable	-05	-05	-12	07	-07	71	15	05	09	-02
theatrical	19	07	04	05	08	45	-13	03	-09	03
conscientious	39	01	12	01	04	12	62	-12	-15	-06
loyal	01	27	03	-06	03	04	42	12	20	21
solemn	14	00	-02	16	-14	14	-07	61	-07	13
conventional	-10	04	09	-10	23	05	-06	44	12	-06
happy	08	24	-04	-08	-05	21	-03	-18	53	15
dominant	38	-06	01	20	-05	-07	-06	12	18	-19
takes risks	31	14	28	10	00	-14	-01	07	02	-23
affectionate	-08	34	10	-01	-03	17	01	03	03	20
cheerful	-05	32	04	-13	05	19	12	-02	38	13
helpful	04	30	-06	-11	-04	-01	36	10	26	13
unsystematic	06	01	-01	18	32	13	-10	04	05	-06
childlike	-10	11	-21	18	38	02	-11	09	05	-05
reliable	01	13	26	-02	-20	-03	32	13	14	26
yielding	-12	11	-12	08	20	-01	16	40	-10	-09
decisions easy	19	06	17	08	-24	-09	19	00	08	-04
soft-spoken	-08	18	-01	-09	22	29	07	28	-11	-12
masculine	10	-08	01	15	-06	-15	-05	08	29	-12
athletic	19	07	18	03	04	03	-04	-11	17	-15
loves children	-17	16	07	10	25	10	03	-02	04	25
feminine	-21	00	08	05	01	29	04	12	09	16
shy	-10	01	-14	12	11	27	09	16	08	-12
Sum squares	5.89	4.85	2.09	1.96	1.65	1.53	1.51	1.39	1.16	.97

Note: Loadings carried to two decimal places with decimal points deleted.

Table 18. Female self-report primary factor loadings when constrained by the desirability ratings factor matrix

Item	Factor 1	2	3	4	5	6	7	8	9	10
self-reliant	36	06	13	-06	-10	-04	07	08	03	00
independent	38	09	20	01	-10	-09	02	00	00	01
assertive	50	01	14	04	-17	00	-03	-02	10	-03
self-sufficient	44	04	23	01	-11	-04	01	08	01	-04
defends beliefs	29	11	11	05	01	-02	06	-04	07	06
acts as leader	51	-02	22	-03	-04	-02	10	-10	19	-02
has leadership abilities	42	04	25	-05	-02	-02	08	-11	17	-01
ambitious	24	14	23	03	-10	00	02	03	12	01
analytical	43	01	09	12	-04	00	13	13	-06	-01
competitive	32	-12	14	14	00	05	-03	05	16	-12
takes stand	42	13	20	-01	-09	-05	04	-09	14	05
forceful	47	-16	05	26	-10	04	-07	05	01	-05
individualist	45	08	21	07	00	-06	04	00	03	02
aggressive	48	-15	12	25	-13	03	-10	03	04	-10
has strong personality	48	05	18	06	-12	06	-06	01	14	-01
friendly	00	37	14	-03	06	19	00	01	18	02
warm	-03	57	05	05	-05	16	04	03	06	10
tender	-16	61	-04	02	-03	17	07	05	01	09
gentle	-15	59	02	05	02	22	07	14	00	08
compassionate	01	55	-01	-02	-02	02	19	-03	00	12
eager to soothe hurt feelings	-03	44	04	06	13	09	23	06	01	09
truthful	21	25	09	-17	-02	-05	19	-01	05	10
sensitive to others' needs	02	41	09	-07	11	04	22	-03	04	13
sincere	26	42	12	-05	04	04	24	04	04	14
understanding	12	50	17	00	09	00	22	-07	10	15
sympathetic	-11	52	00	06	17	06	23	-03	-01	13
likeable	07	27	13	-03	08	15	06	03	17	04

adaptable	28	16	25	-05	08	-04	02	05	04	-04
tactful	09	22	20	05	06	02	12	-01	08	05
jealous	-20	-03	-05	34	17	16	-09	10	-01	-12
secretive	03	-06	12	27	08	12	-09	08	07	-04
unpredictable	25	-03	11	30	10	05	-09	-02	03	00
conceited	30	-15	04	29	07	14	-09	11	04	-07
moody	-04	-05	-04	26	-02	03	01	04	-04	-03
gullible	-13	09	-15	17	34	23	13	19	-05	-02
no harsh lang.	-06	12	06	-08	22	05	10	06	04	06
inefficient	-10	-10	-13	08	32	12	-04	07	-05	01
flatterable	-10	20	-08	28	08	24	-01	16	-01	-06
theatrical	22	09	05	29	17	16	-09	08	03	-03
conscientious	34	06	01	-07	04	06	31	14	01	07
loyal	14	38	11	-04	04	00	20	-01	05	13
solemn	07	05	-07	11	01	13	08	25	-09	-02
conventional	-03	00	12	00	04	14	04	16	05	-04
happy	02	29	17	-23	05	10	-03	-10	27	06
dominant	51	-20	11	20	-07	04	-04	02	06	-07
takes risks	46	05	30	11	-05	-10	-07	-08	12	-04
affectionate	-19	58	-03	00	00	17	-03	-07	11	13
cheerful	-02	28	11	-23	09	12	-02	-08	25	06
helpful	07	36	10	-05	06	02	20	-03	08	09
unsystematic	-10	01	06	19	31	06	-16	-03	02	-02
childlike	-15	15	-16	31	29	19	01	09	-01	-03
reliable	29	23	07	-08	-08	-02	24	06	-01	10
yielding	-12	15	-02	04	09	18	10	15	-09	-04
decisions easy	45	01	16	-17	-27	-13	00	-05	04	-01
soft-spoken	-18	16	-08	-03	11	18	10	24	-03	04
masculine	23	-04	01	11	-03	-11	-04	-06	05	-08
athletic	28	16	22	04	-02	06	-02	07	29	-14
loves children	-17	20	02	-11	-01	03	03	05	04	-03
feminine	-04	19	11	06	03	30	-03	21	02	07
shy	-15	-05	-05	06	20	08	17	17	-06	02
Sum squares	4.38	4.04	1.07	1.25	.91	.74	.82	.53	.55	.32

Note: Loadings carried to two decimal places with decimal points deleted.

Table 19. Female self-report primary factor matrix when not constrained by the desirability factor matrix

Item	Factor 1	2	3	4	5	6	7	8	9	10
understanding	62	06	-02	04	02	-04	08	-05	10	-02
sympathetic	60	18	08	-03	-06	-06	-08	12	-13	00
eager to soothe hurt feelings	49	12	00	01	07	-10	01	06	-14	08
sensitive to others' needs	49	07	07	02	10	10	-05	02	-05	05
compassionate	46	36	-02	05	-20	02	01	-05	-06	08
loyal	45	05	-12	08	00	01	04	-06	09	08
helpful	44	05	08	-01	02	03	09	-03	-04	07
sincere	44	12	-04	17	05	10	00	00	09	18
affectionate	22	66	-02	-17	02	19	07	03	16	-12
tender	27	63	-08	01	03	06	00	-02	-10	01
warm	26	59	-04	04	15	00	03	-07	04	-01
gentle	24	56	-20	12	23	04	01	00	-13	01
has leadership abilities	15	-03	70	11	15	13	10	02	-02	07
acts as leader	11	-06	70	05	06	10	16	03	07	16
soft-spoken	02	02	-58	-05	22	08	11	04	-04	18
adaptable	09	-06	04	58	02	20	11	11	-24	-15
self-sufficient	-05	03	02	53	10	01	05	-07	-04	-03
independent	09	01	01	44	-02	-03	-01	-09	07	-03
takes risks	06	-03	18	43	-08	-09	19	-01	11	-19
individualist	11	-06	-01	42	-05	-01	04	06	16	02
self-reliant	-01	03	-02	41	01	09	-01	-06	-04	14
feminine	-07	30	-11	07	80	02	-17	-01	09	04
masculine	-04	-02	00	11	-53	-09	32	09	06	-04
conventional	-02	-08	01	03	46	-04	10	-05	-21	07
cheerful	06	19	11	-16	17	54	31	07	10	-07
happy	09	19	13	-14	23	49	32	-02	13	-10
moody	07	-02	-02	-15	-04	-48	03	-04	04	03

athletic	-01	02	-13	07	-18	01	87	-05	-06	00
competitive	-11	-11	17	03	-03	-13	42	08	03	07
gullible	09	-02	06	-11	01	03	01	54	-21	16
inefficient	-12	-13	-13	-04	-04	22	-09	51	11	-05
childlike	09	13	-08	-16	-23	-13	15	50	00	-03
theatrical	-07	20	07	23	-03	-05	06	43	16	-11
unsystematic	00	-09	-11	16	00	04	-01	42	10	-43
yielding	11	04	-05	17	06	-06	-02	09	-41	05
conscientious	22	-16	04	-04	07	07	04	06	07	51
tactful	36	-07	12	08	24	-15	04	-08	-05	-05
flatterable	-02	37	12	-05	07	-21	09	25	-18	05
friendly	13	33	19	-03	27	21	24	06	-06	-06
shy	18	-37	-30	-15	10	-17	01	09	-10	15
aggressive	-23	15	38	23	-05	-24	08	09	14	08
assertive	-13	20	35	21	-05	03	12	-02	17	14
dominant	-18	-01	31	17	-07	-16	10	13	24	13
solemn	-08	07	-34	13	07	-12	03	09	-05	24
analytical	05	-03	05	34	-03	-16	-03	07	00	25
decisions easy	-12	15	19	36	-11	21	04	-22	05	12
jealous	-05	06	13	-08	02	-36	12	28	-24	-15
secretive	-02	-09	-13	-02	29	-34	15	04	16	-14
conceited	-23	04	11	10	06	-16	11	30	21	05
forceful	-21	12	22	15	-07	-23	01	14	30	15
has strong personality	-14	21	14	20	06	07	20	01	30	09
unpredictable	02	03	15	15	04	-24	-06	24	30	-15
loves children	07	12	-12	03	01	11	21	-11	-30	-02
reliable	30	03	-08	13	01	01	-01	-14	07	31
truthful	30	-03	-12	09	-06	17	08	-11	09	18
likeable	16	14	07	-06	24	16	25	04	03	03
takes stand	15	05	15	12	-05	03	17	-08	28	04
defends beliefs	16	00	00	10	-06	-01	06	04	28	04
no harsh lang.	20	-22	-28	03	16	18	07	13	01	-03
Sum squares	3.20	2.65	2.56	2.25	1.98	1.84	1.81	1.80	1.41	1.17

Note: Loadings carried to two decimal places with decimal points deleted.

Table 20. Female self-report (Q2) primary factor matrix when standardized on the second female self-report sample (Q1) and not constrained

Item	Factor 1	2	3	4	5	6	7	8	9	10
understanding	62	-05	09	05	05	06	13	06	04	04
sympathetic	61	06	21	00	-08	13	-09	-05	-07	-01
eager to soothe hurt feelings	54	00	14	04	-06	09	-08	-03	08	08
sensitive to others' needs	46	06	09	04	12	02	-04	-09	03	09
loyal	41	-13	07	08	04	-07	10	04	-02	19
compassionate	40	-02	35	08	-02	-02	-06	02	-22	08
helpful	40	09	08	-03	08	-03	-07	10	00	16
has leadership abilities	16	78	-04	12	22	01	-02	06	09	04
acts as leader	10	77	-08	04	19	03	07	13	04	13
soft-spoken	-02	-51	05	-05	12	05	-09	02	21	29
aggressive	-25	42	17	18	-21	07	19	19	04	01
assertive	-14	42	20	20	05	-05	23	13	-07	10
tender	23	-06	65	04	10	-01	-11	-03	-04	03
warm	25	-03	65	01	10	-10	05	-04	10	00
gentle	21	-17	61	12	12	01	-13	-09	16	07
affectionate	18	-03	60	-15	28	00	15	00	-07	-08
self-sufficient	-09	03	05	70	-01	-11	-07	04	13	03
adaptable	10	02	-06	60	18	12	-21	08	00	-13
independent	09	-01	01	59	-09	-15	07	02	00	-05
self-reliant	-04	00	04	58	01	-05	-07	-04	-05	19
individualistic	13	-03	-07	54	-03	06	25	03	-01	-04
cheerful	02	08	17	-08	75	05	02	13	03	-01
happy	08	10	16	-08	69	-06	06	14	11	-05
moody	12	-01	01	-18	-48	-03	07	13	13	-01
friendly	12	19	35	-02	40	04	-08	11	20	-03
gullible	10	09	-02	-07	03	61	-16	-04	-02	12
childlike	09	-07	14	-19	-09	53	05	26	-13	-05

inefficient	-15	-17	-15	-04	19	51	16	-08	-08	-04
defends beliefs	20	-02	00	10	03	-01	43	13	-05	10
yielding	11	-03	08	17	-11	14	-41	-02	06	08
athletic	01	-07	02	06	21	-03	-09	69	01	06
masculine	-05	-02	-03	07	-12	06	05	48	-34	-06
competitive	-08	19	-10	01	01	06	04	41	11	04
feminine	-07	-06	31	07	18	-03	07	-36	60	08
secretive	-01	-16	-05	-03	-16	00	14	17	45	-11
conventional	-03	04	-04	03	09	-03	-25	-02	45	11
conscientious	17	13	-15	-03	03	08	05	-01	04	56
reliable	22	-03	05	10	-05	-13	03	01	-03	43
sincere	40	-02	15	20	10	00	08	-04	00	27
tactful	38	12	-04	06	-05	-10	-05	01	29	-04
dominant	-18	37	-02	14	-13	14	31	16	00	07
solemn	-17	-31	14	07	-17	10	-08	09	12	39
shy	17	-25	-30	-12	-14	12	-09	-03	25	19
flatterable	01	15	40	-06	-13	26	-13	10	12	-03
takes risks	07	15	-03	38	-03	-06	14	28	01	-18
decisions easy	-16	20	12	33	12	-20	01	05	-17	11
analytical	05	10	-01	32	-23	08	08	01	02	22
likeable	17	08	17	00	36	04	00	11	23	06
jealous	01	12	09	-10	-27	32	-20	22	18	-24
theatrical	-07	05	18	18	00	34	21	12	01	-12
unsystematic	-02	-18	-08	12	09	32	13	06	04	-34
takes stand	14	15	05	10	11	-16	34	23	-02	10
unpredictable	04	13	04	15	-17	22	39	-02	13	-22
has strong personality	-17	21	25	23	19	-04	37	19	08	08
forceful	-25	29	15	10	-23	13	38	10	-01	10
loves children	07	-10	11	05	13	-07	-34	14	00	01
ambitious	21	25	11	14	00	-29	03	14	34	-03
truthful	26	-12	-02	09	16	-13	05	09	-13	33
conceited	-23	13	05	07	-08	26	23	15	14	00
no harsh lang.	17	-28	-20	06	21	12	00	-02	13	06
Sum squares	3.08	2.87	2.77	2.77	2.54	1.86	1.82	1.67	1.66	1.57

Note: Loadings carried to two decimal places with decimal points deleted.

Table 21. Female self-report (Q1) primary factor matrix when standardized on the second female self-report sample and rotated to congruence

Item	Factor 1	2	3	4	5	6	7	8	9	10
understanding	47	-03	22	10	06	-09	-03	-02	-03	-02
sympathetic	66	-01	07	-05	-13	00	-01	-08	-05	09
eager to soothe hurt feelings	43	02	26	02	00	09	-05	05	-01	04
sensitive to others' needs	56	02	18	03	07	-04	-05	00	03	05
loyal	28	-01	13	14	00	-12	-02	-07	-07	21
compassionate	42	-08	31	-05	11	04	01	01	09	10
helpful	36	14	24	03	03	-06	04	08	-01	12
has leadership abilities	-01	48	10	18	14	00	08	10	08	00
acts as leader	-09	48	07	18	16	-03	10	10	12	05
soft-spoken	06	-46	-02	-06	06	08	02	-07	24	21
aggressive	-13	36	11	11	-22	05	18	16	01	06
assertive	-07	29	10	20	04	-07	20	22	03	08
tender	23	-02	49	02	21	12	-06	02	20	00
warm	27	-10	43	-13	18	-03	05	08	10	10
gentle	28	-01	45	05	06	03	-08	-07	18	10
affectionate	18	08	44	-03	22	21	-08	11	-01	-09
self-sufficient	06	06	03	60	04	-12	04	-01	08	10
adaptable	10	13	02	46	19	03	-20	07	02	-17
independent	03	00	-07	57	00	-11	09	01	01	10
self-reliant	08	02	-07	53	-14	-05	02	03	05	24
individualistic	03	-07	05	46	07	10	19	09	01	-06
cheerful	09	-03	19	08	50	-15	05	08	02	-02
happy	01	-06	20	06	58	-07	05	07	06	07
moody	09	-05	-01	01	-54	17	14	05	-01	-02
friendly	22	16	24	23	28	-02	-08	08	04	-09
gullible	04	-04	14	00	-09	29	-15	-18	09	-06
childlike	-02	-09	06	-09	-05	23	08	11	01	-04

inefficient	-07	-12	-05	-06	02	37	04	01	02	-17
defends beliefs	05	15	14	16	02	-07	44	07	00	07
yielding	07	-08	18	03	03	18	-28	-05	15	03
athletic	-07	07	08	05	16	01	06	40	-02	00
masculine	-04	-05	-01	-02	-10	11	24	34	-26	-11
competitive	18	25	-05	05	11	09	05	39	14	15
feminine	13	-06	20	06	28	07	-02	-04	23	14
secretive	-11	-20	12	04	-30	03	-03	11	31	04
conventional	-02	09	08	-10	09	01	-24	-02	25	18
conscientious	22	-05	-18	13	-13	11	-02	05	06	22
reliable	37	-07	-03	12	07	-17	-08	04	05	33
sincere	31	-05	25	04	16	-12	01	-04	01	22
tactful	23	09	07	15	-07	-03	-09	-08	19	14
dominant	-09	35	02	05	-13	01	32	21	-05	06
solemn	-11	-13	05	-04	-09	04	-03	-03	27	07
shy	-01	-37	-10	-05	-18	14	-06	-12	23	16
flatterable	-01	04	16	13	11	17	02	06	07	-02
takes risks	06	26	-02	09	06	05	08	09	-02	-11
decisions easy	-09	22	-06	22	13	-22	-01	-03	08	-03
analytical	02	12	01	21	-17	-15	07	14	07	14
likeable	18	-12	34	07	25	-05	08	07	06	02
jealous	03	07	19	-09	-26	17	03	03	13	-03
theatrical	02	24	11	17	-01	23	21	26	07	-03
unsystematic	05	-19	-11	-05	15	41	19	-02	-06	-18
takes stand	04	31	11	19	14	-01	40	11	02	-03
unpredictable	02	01	03	17	-14	26	17	15	11	-22
has strong personality	-05	27	40	06	17	01	21	15	-02	-03
forceful	-06	30	-01	03	-20	02	23	19	12	07
loves children	16	15	08	04	14	-03	-15	-15	17	02
ambitious	13	32	01	24	-06	00	07	06	05	12
truthful	27	-09	09	12	11	-10	-09	-05	-03	29
conceited	-15	18	04	05	-19	27	09	12	12	-04
no harsh lang.	06	-12	-14	-06	23	08	-06	-03	12	18
Sum squares	2.53	2.15	2.01	2.07	2.08	1.13	1.22	.98	.84	.93

Note: Loadings carried to two decimal places with decimal points deleted.

Table 22. Female self-report (01) primary factor matrix when standardized on the second self-report sample

Item	Factor 1	2	3	4	5	6	7	8	9	10
takes stand	70	13	15	22	18	-04	-18	-10	-11	00
dominant	66	-06	02	-06	-05	-10	-07	14	-02	-08
acts as leader	66	-07	03	19	-12	-10	-07	-11	04	18
defends belief	61	13	27	15	09	03	-18	-09	-13	-23
forceful	60	02	-07	-09	-05	16	-13	07	05	04
aggressive	56	-11	09	-17	-18	-06	16	10	-06	-06
assertive	50	-02	19	12	-18	-02	-01	15	-02	03
has strong personality	47	08	09	21	-10	-12	25	09	-27	-11
theatrical	46	06	06	01	14	03	12	20	05	12
ambitious	43	11	17	-05	-09	-11	04	-07	14	09
competitive	41	-17	-11	19	-17	08	07	41	31	19
sympathetic	-02	79	-13	-18	08	-10	-13	-13	18	00
sensitive to others' needs	-02	74	-08	04	-01	-01	-06	-06	10	13
understanding	-12	64	06	01	-03	-01	-06	-04	-07	10
compassionate	04	60	-06	14	02	08	10	-04	06	-08
eager to soothe hurt feelings	02	56	-02	-06	-02	-08	18	06	05	02
warm	06	51	-09	26	-10	16	13	07	-08	-16
helpful	21	50	00	03	-16	-09	06	05	04	-02
gentle	05	43	08	10	-14	14	33	-17	-09	-10
tender	05	42	-01	23	-02	18	35	-08	-12	00
independent	03	-10	72	02	-09	-01	-05	-03	05	05
self-sufficient	08	-03	72	06	-14	03	01	-11	01	11
self-reliant	07	-08	69	-11	-20	-02	08	02	21	-03
individualist	05	-04	57	07	19	05	01	07	-06	05
happy	08	06	11	62	03	-05	07	02	03	-03
cheerful	02	21	08	52	-01	-02	-08	04	-07	09
moody	06	11	05	-51	07	18	-01	11	-05	-13

unsystematic	-01	-05	-06	08	72	-11	03	-05	11	-07
inefficient	-07	-16	-11	-04	45	02	15	01	05	02
secretive	-12	01	06	-14	-16	66	00	13	-08	04
solemn	00	-07	-04	03	-02	42	02	-10	02	-03
soft-spoken	-22	04	08	21	17	41	-06	-08	24	-24
affectionate	01	30	-09	13	01	-14	48	15	-12	04
gullible	-09	-03	-01	-16	18	-02	42	-24	-01	-06
masculine	-01	-01	03	-13	10	-11	-08	59	-08	-05
athletic	08	02	-02	19	-14	04	01	54	06	18
conscientious	02	12	12	-12	04	-01	-01	04	43	-01
adaptable	-21	05	32	04	-03	-08	13	06	-02	50
conceited	33	-17	-03	-17	11	10	22	06	03	04
sincere	06	40	15	20	-16	-09	09	-08	06	-21
likeable	-01	34	14	30	-02	13	06	07	-14	-06
friendly	03	33	11	21	-06	-07	01	02	-07	30
reliable	-04	39	16	12	-24	-02	-11	05	38	-03
feminine	13	18	06	34	06	14	17	-20	14	-05
unpredictable	12	08	-05	-13	33	29	-05	10	-10	23
shy	-23	-09	05	-07	14	39	01	-13	22	-18
loves children	11	21	-10	13	-02	03	06	-35	06	17
no harsh lang.	00	-03	-08	26	15	00	-01	08	39	-04
truthful	-09	22	27	11	-22	-19	15	-01	24	-20
takes risks	28	10	-07	01	10	-11	-06	01	00	22
decisions easy	18	-09	14	15	-15	03	-17	-17	-08	24
yielding	-25	05	-01	-02	-07	08	43	-04	09	08
jealous	17	13	-14	-22	-01	20	19	-01	-10	-05
loyal	-01	27	28	-01	-21	-20	11	-06	09	-20
flatterable	11	-02	12	10	09	00	26	02	00	02
childlike	01	-01	-09	-05	19	06	13	17	03	-07
analytical	20	06	23	-09	-28	15	-11	13	03	05
tactful	12	28	09	-04	-12	14	03	-23	13	09
conventional	07	01	-22	14	-22	14	22	-11	22	08
Sum squares	4.51	4.34	2.69	2.13	1.77	1.58	1.55	1.53	1.22	1.15

Note: Loadings carried to two decimal places with decimal points deleted.

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Marcia Jean Macklin Belcher was born March 20, 1949, in Wichita, Kansas, the first child of Ralph and Carol Macklin. After several years in the Wichita public schools, she completed fifth through eighth grades in one- and two-room schools in rural Kansas. She graduated from high school in Pennsylvania, then attended and graduated from West Virginia Wesleyan College with majors in psychology and drama. Her M. Ed. degree was in Psychological Foundations of Education from the University of Florida. While completing her doctorate, she held research and teaching assistantships in measurement and evaluation in the College of Education and the Department of Psychology.

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I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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